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STATISTICAL BULLETIN NO. 362

**CONVERSION
FACTORS**
and
**WEIGHTS
AND
MEASURES**

***for Agricultural
Commodities and
Their Products***

U.S. DEPARTMENT OF AGRICULTURE/ECONOMIC RESEARCH SERVICE

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CONVERSION FACTORS AND WEIGHTS AND MEASURES FOR AGRICULTURAL COMMODITIES
AND THEIR PRODUCTS 1/

The tables in this report were compiled to provide a manual of uniform conversion factors for use in statistical, research, and service programs of the Department. A reasonably complete set of all-purpose factors is presented. However, for a particular commodity, the data may not be entirely adequate for all uses.

The data are intended to represent overall averages except where indicated. However, in some instances the averages are only approximations. All conversion factors included are based on the most recent and reliable information available and are intended to reflect current conditions and practices. Factors for many commodities change from year to year; therefore, caution should be exercised when using these data to compile or revise historical series.

The number of significant figures shown for many factors does not necessarily indicate the degree of precision. Some of the factors are in common use and carry more significant digits than might be justified when considering the accuracy of the data from which they were derived.

Data in this report were compiled by a Task Force on Conversion Factors and Weights and Measures. The Task Force was directed by a Steering Committee of which William S. Hoofnagle was chairman. Mr. Hoofnagle succeeded Robert E. Olson in September 1964. Henry T. Badger was executive secretary. Eleven commodity subcommittees provided information for this report--10 from within the Department and one from Fish and Wildlife Service, Department of the Interior.

The following agencies within the Department of Agriculture participated in the preparation of this report: Consumer and Marketing Service, Agricultural Research Service, Agricultural Stabilization and Conservation Service, Economic Research Service, Foreign Agricultural Service, and Statistical Reporting Service.

1/ This publication is a revision of Conversion Factors and Weights and Measures for Agricultural Commodities and Their Products, published by the U. S. Department of Agriculture in May 1952.

DAIRY PRODUCTS

Table 1.--Whole milk equivalents and milk solids factors

| Commodity | Milk solids content 1/ | | | Amounts of product from 100 pounds of whole milk 2/ | Factors for obtaining whole milk equivalent in terms of 3/ | |
|---------------------------------|------------------------|--------|-------|---|--|--------|
| | Fat | Nonfat | Total | | Fat | Nonfat |
| | solids | solids | milk | | solids | solids |
| | 1 | 2 | 3 | | 4 | 5 |
| : | : | : | : | : | : | : |
| : | Pct. | Pct. | Pct. | Lb. | Lb. | Lb. |
| Whole milk from farm-wholesale: | 3.7 | 8.62 | 12.32 | 100 | 1.000 | 1.000 |
| Milk from plant - retail | 3.5 | 8.64 | 12.14 | 99.76 | .946 | 1.002 |
| Fresh milk concentrate - : | | | | | | |
| 3 to 1 | 10.5 | 25.92 | 36.42 | 33.26 | 2.838 | 3.007 |
| Flavored drink | 2.0 | 8.77 | 10.77 | 98.30 | .541 | 1.017 |
| Chocolate flavored drink | 2.1 | 8.4 | 10.5 | --- | .568 | .974 |
| Chocolate flavored milk | 3.2 | 8.5 | 11.7 | --- | .865 | .986 |
| Skim milk - regular | .1 | 8.94 | 9.04 | 96.42 | .027 | 1.037 |
| - modified | .1 | 10.0 | 10.1 | --- | .027 | 1.160 |
| - modified | 2.0 | 10.0 | 12.0 | --- | .541 | 1.160 |
| Cultured buttermilk - : | | | | | | |
| (from modified skim milk) ... | 1.0 | 11.0 | 12.0 | --- | .270 | 1.276 |
| Half and half - regular | 12.4 | 7.84 | 20.24 | 30.0 | 3.351 | .909 |
| - modified | 11.5 | 9.0 | 20.5 | --- | 3.108 | 1.044 |
| Cream - sour (modified) | 18.5 | 8.5 | 27.0 | --- | 5.000 | .986 |
| - coffee | 18.0 | 7.34 | 25.34 | 20.56 | 4.865 | .852 |
| - table | 20.0 | 7.17 | 27.17 | 18.50 | 5.405 | .832 |
| - light whipping | 30.0 | 6.26 | 36.26 | 12.33 | 8.108 | .726 |
| - heavy whipping | 36.0 | 5.73 | 41.73 | 10.28 | 9.730 | .665 |
| - sweetened | 40.0 | 5.37 | 45.37 | 9.25 | 10.811 | .623 |
| - dry | 50.0 | 49.2 | 99.2 | 7.4 | 13.514 | 5.708 |
| - plastic | 80.0 | 1.1 | 81.1 | 4.62 | 21.622 | .128 |
| Butter - domestic | 80.3 | 1.0 | 81.3 | 4.61 | 21.702 | .116 |
| - export | 82.5 | 1.5 | 84.0 | 4.48 | 22.297 | .174 |
| - export | 83.5 | 1.5 | 85.0 | 4.43 | 22.568 | .174 |
| Butteroil and anhydrous : | | | | | | |
| milk fat | 99.8 | 0.1 | 99.9 | --- | 26.973 | .012 |
| Buttermilk | .5 | 8.8 | 9.3 | 97.95 | .135 | 1.021 |
| Dry buttermilk | 5.3 | 91.9 | 97.2 | 9.38 | 1.433 | 10.661 |
| Condensed or evaporated : | | | | | | |
| buttermilk | 1.5 | 26.4 | 27.9 | --- | .405 | 3.063 |
| Condensed milk - sweetened ... | 8.5 | 19.5 | 28.0 | --- | 2.297 | 2.262 |
| - unsweetened .. | 7.9 | 18.0 | 25.9 | --- | 2.135 | 2.088 |
| Condensed skim milk - : | | | | | | |
| sweetened or unsweetened ... | 0.2 | 29.8 | 30.0 | --- | .054 | 3.457 |
| Evaporated milk | 7.9 | 18.0 | 25.9 | 46.84 | 2.135 | 2.088 |
| Dry whole milk | 26.5 | 71.0 | 97.5 | 12.14 | 7.162 | 8.237 |
| Nonfat dry milk - regular | 0.8 | 96.2 | 97.0 | 8.96 | .216 | 11.160 |
| - instant | 0.7 | 95.3 | 96.0 | 9.05 | .189 | 11.056 |
| Dry malted milk | 8.0 | 18.9 | 26.9 | --- | 2.162 | 2.192 |
| Casein | 0.3 | 92.5 | 92.8 | --- | .081 | 10.731 |
| Cheddar cheese - natural : | | | | | | |
| - minimum legal comp. | 30.5 | 30.5 | 61.0 | --- | 8.243 | 3.538 |
| - natural - commercial comp. : | 32.2 | 30.8 | 63.0 | 11.49 | 8.703 | 3.573 |
| - pasteurized process cheese : | 30.0 | 30.0 | 60.0 | --- | 8.108 | 3.480 |
| - pasteurized process : | | | | | | |
| cheese food | 23.0 | 33.0 | 56.0 | --- | 6.216 | 3.828 |
| - pasteurized process : | | | | | | |
| cheese spread | 20.0 | 20.0 | 40.0 | --- | 5.405 | 2.320 |
| : | : | : | : | : | : | : |

Continued --

DAIRY PRODUCTS

Table 1.--Whole milk equivalents and milk solids factors--Continued

| Commodity | Milk solids content 1/ | | | Amounts of product from 100 pounds of whole milk 2/ | Factors for obtaining whole milk equivalent in terms of: 3/ | |
|--|------------------------|------------------|-----------------|---|---|---------------------|
| | Fat solids | Nonfat solids | Total solids | | Fat solids 4/ | Nonfat solids 5/ |
| | 1 | 2 | 3 | | 5 | 6 |
| Swiss cheese - natural | | | | | | |
| - minimum legal comp. | 25.4 | 33.6 | 59.0 | --- | 6.865 | 3.898 |
| - natural - commercial comp. | 28.0 | 33.0 | 61.0 | 13.21 | 7.568 | 3.828 |
| - pasteurized process cheese | 26.9 | 33.1 | 60.0 | --- | 7.270 | 3.840 |
| Italian types, soft | 24.8 | 30.2 | 55.0 | --- | 6.703 | 3.503 |
| - hard grating | 23.5 | 43.5 | 67.0 | --- | 6.351 | 5.046 |
| Blue mold, domestic type | | | | | | |
| - natural | 30.5 | 29.5 | 60.0 | 12.13 | 8.243 | 3.422 |
| Cream cheese - natural | 37.0 | 12.0 | 49.0 | --- | 10.000 | 1.392 |
| Cottage cheese curd | 0.3 | 20.7 | 21.0 | 41.64 | .081 | 2.401 |
| Creamed cottage cheese | 4.2 | 17.5 | 21.7 | --- | 1.135 | 2.030 |
| Whey - unseparated (from mfg. of cheddar cheese) ... | 0.4 | 6.6 | 7.0 | --- | .108 | .766 |
| Dry whey - from separated cheddar whey | 1.2 | 94.3 | 95.5 | --- | .324 | 10.940 |
| Lactose - from separated cheese whey (98% lactose) | --- | 99.75 | 99.75 | --- | --- | 11.572 |
| Ice cream | 10.0 | 11.0 | 21.0 | --- | 2.703 | 1.276 |
| | 12.0 | 10.0 | 22.0 | --- | 3.243 | 1.160 |
| | 14.0 | 9.0 | 23.0 | --- | 3.784 | 1.044 |
| | 16.0 | 8.0 | 24.0 | --- | 4.324 | .928 |
| Ice milk | 2.0 | 14.0 | 16.0 | --- | .541 | 1.624 |
| | 4.0 | 12.0 | 16.0 | --- | 1.081 | 1.392 |
| | 6.0 | 11.0 | 17.0 | --- | 1.622 | 1.276 |
| Fruit sherbet | 2.0 | 2.0 | 4.0 | --- | .541 | .232 |

1/ Based on Federal Food & Drug Standards of Identity & U.S. Average Factory Production Data.

2/ Based on the total utilization of the fat or solids-not-fat from 100 pounds of milk. No fat or solids-not-fat were added; therefore, parts of the total of either the fat or solids-not-fat were unusable.

3/ For computing whole milk equivalents from milk of composition other than that of the single test (3.7% fat and 8.62% solids-not-fat) shown, use the following: (1) Fat in the product \div fat in the milk = whole milk equivalent in terms of fat as in column 5. Example--To compute the whole milk equivalent at 4.0 percent fat of 18 percent cream: $.18 \div .04 = 4.50$. (2) $(1 - \text{fat in the product}) \div (1 - \text{fat in the milk}) \times \text{nonfat solids in the milk} = \text{nonfat solids in the product}$. Example--For 18% cream: $(1 - .18) \div (1 - .04) \times .09 = .077$ or 7.7 percent nonfat solids in the cream. The first part of the formula $(1 - .18) \div (1 - .04)$ provides the whole milk equivalent in terms of nonfat solids as in column 6. (3) To determine nonfat solids equivalents for mellorine type frozen desserts use the factors for ice cream mixes of equivalent fat percentages.

4/ Computed from column 1 on basis of whole milk containing 3.7% fat.

5/ Computed from column 2 on basis of whole milk containing 8.62% solids-not-fat.

DAIRY PRODUCTS

Table 2.--Skim milk, buttermilk, and whey equivalents

| Commodity | Conversion to -- | Factors |
|--|------------------|---------|
| Skim milk cheese | Fluid skim milk | 16.0 |
| Cottage, pot, and bakers' cheese | do. | 6.25 |
| Nonfat dry milk | do. | 11.0 |
| Dry casein | do. | 35.7 |
| Condensed and evaporated skim milk (sweetened or unsweetened) | do. | 3.0 |
| Concentrated skim milk (for animal feed) | do. | 3.0 |
| Dry buttermilk | Fluid buttermilk | 11.0 |
| Condensed or evaporated buttermilk | do. | 3.0 |
| Dry whey | Fluid whey | 13.5 |
| Dry lactose | do. | 25.0 |

Table 3.--Net weight of standard units

| Commodity | Unit | Pounds per unit 40° F. | Pounds per unit 50° F. | Pounds per unit 68° F. |
|---------------------------------|---------------------|------------------------|------------------------|------------------------|
| Whole milk - 3.7 fat -- | | | | |
| 8.62 S.N.F. | Gallon | 8.62 | 8.60 | 8.58 |
| Milk, standardized - 3.5 fat -- | | | | |
| 8.64 S.N.F. | do. | 8.62 | 8.61 | 8.58 |
| Skim milk (regular) | do. | 8.64 | 8.63 | 8.61 |
| Skim milk (modified) | do. | 8.68 | 8.67 | 8.65 |
| Cultured buttermilk | do. | 8.66 | 8.66 | 8.62 |
| Half and half (regular) | do. | 8.56 | 8.54 | 8.50 |
| Chocolate flavored milk | do. | 8.81 | 8.80 | 8.78 |
| Chocolate flavored drink | do. | 8.81 | 8.80 | 8.78 |
| Cream 18% | | | | |
| 20% | do. | 8.52 | 8.50 | 8.45 |
| 36% | do. | 8.51 | 8.49 | 8.43 |
| 40% | do. | 8.41 | 8.37 | 8.29 |
| Evaporated milk 1/ | : 48/14½ oz. (cans) | 43.50 | -- | -- |
| Condensed milk (sweetened) | : 48/14 oz. (cans) | 42.00 | -- | -- |
| Condensed milk (sweetened) | : 48/15 oz. (cans) | 45.00 | -- | -- |
| Ice cream - 10-12% fat | Gallon | -- | -- | 4.50 |
| - 12% mix (liquid) | do. | -- | -- | 9.00 |
| Ice milk - 4% fat | do. | -- | -- | 4.50 |
| - 4% mix (liquid) | do. | -- | -- | 9.00 |
| Fruit sherbet | do. | -- | -- | 6.00 |

1/ Weights of other can sizes; evaporated milk, 6 ounce, 6.75 pound.

Weight per gallon of liquid ice cream mix and similar products at 68° F. can be obtained by use of the following formula:

$$\text{Specific gravity} = \frac{100}{\frac{\% \text{Fat}}{0.93} + \frac{\% \text{Sugar}}{1.58} + \frac{\% \text{Nonfat milk solids}}{1.58} + \frac{\% \text{Water}}{1.58}}$$

Specific gravity \times 8.34 = Weight of 1 gallon of product.

MEAT AND MEAT PRODUCTS

Conversion factors for meats and meat products are used to calculate the dressed weight equivalent of bone-in cuts, boneless meat, and of cooked, prepared, or canned meat items. The fundamental basis for meat conversion factors is the relation between the amount of usable meat in each cut or carcass and the amount of waste in bone, fat, tendons, ligaments, and inedible trimmings. Factors for converting boneless beef into dressed weight equivalent were developed from data on the yield of boneless meat from various grades of carcasses. The cutting was under commercial boning practices.

Dressed meat equivalent (carcass weight) for beef, veal, lamb and mutton, and pork is defined as follows:

Beef: Weight of the dressed carcass with kidney and suet in.

Veal: Weight of dressed carcass with hide off and kidney and suet in.

Lamb and mutton: Weight of dressed carcass with kidney and suet in.

Pork: "Shipper style" is the weight of the dressed carcass with the head on and the kidneys and leaf fat in. "Packer style" is the weight of the dressed carcass with head off and kidney and leaf fat out. Average composition of these two types of carcasses and of the live weight is estimated as follows:

| | <u>Live weight Percent</u> | <u>Shipper-style carcass Percent</u> | <u>Packer-style carcass Percent</u> | <u>Pork, ex- cluding lard Percent</u> |
|--------------------|------------------------------------|--|---|---|
| Bone | 11 | 14 | 14 | 12 |
| Skin | 5 | 6 | 6 | 5 |
| Flesh | 43 | 56 | 58 | 83 |
| Fat rendered | 18 | 24 | 22 | --- |
| Edible offal | 6 | --- | --- | --- |
| Inedible and waste | 17 | --- | --- | --- |
| Total | 100 | 100 | 100 | 100 |

Conversion factors for all canned meats and sausages are based upon the weight of boneless, and in the case of pork, skinless meat in each unit of finished product. It should be noted that formulas for commercial canned meats may vary materially from the factors herein stated, depending upon relative prices and availabilities of different types of meat and edible offal items and upon the different processing methods used. Generally, cured and smoked sausage products contain 88% meat and/or edible offals. Products with cereal or other extenders in the product name contain 85 1/2% meat and/or edible offals. The amount and kind of meat and edible offals varies from product to product and because of price relationships of raw materials at time of manufacture. Liver products such as liver sausage, liver spreads, etc., usually contain 30% liver. Most dry sausages can be converted to a meat equivalent by using a factor of 1.25.

MEAT AND MEAT PRODUCTS

Table 4.--Average live weight and dressing yields of cattle, calves, sheep and lambs, and hogs commercially slaughtered, 1954-63 and 1963

| Species | Live weight | | Dressing yields | |
|-----------------------------|-------------|-------|-----------------|----------------|
| | Average | 1963 | Average | 1963 |
| | 1954-63 | | 1954-63 | |
| Cattle | 983 | 1,024 | 56.1 | 57.5 |
| Calves | 219 | 220 | 55.7 | 56.4 |
| Sheep and lambs | 97 | 98 | 48.2 | 48.9 |
| Hogs | 236 | 238 | <u>1</u> /76.1 | <u>1</u> /76.3 |
| Hogs, excluding lard 2/ ... | --- | --- | 57.9 | 59.8 |

1/ Dressing yield for shipper-style pork carcass. To obtain packer-style pork carcass, subtract 7.0.

2/ Pork excluding lard is computed by deducting the weight of fats rendered into lard or pork fat from the shipper-style carcass. Shipper-style carcass is computed by adding 7% to packer-style carcass, the 7% to include 4.5% head, 2.25% leaf fat, and 0.25% kidney, or the items normally on the shipper-style carcass.

Table 5.--Beef: Yield of wholesale cuts from the carcass and yield of boneless meat from wholesale cuts

| Carcass and wholesale cuts | Yield of bone-in wholesale cuts | | Yield of boneless meat from wholesale cuts <u>1</u> / | |
|---------------------------------|---------------------------------|-------------------|---|-------------------|
| | Prime, Choice, and Good | Canner and Cutter | Prime, Choice, and Good | Canner and Cutter |
| | Percent | Percent | Percent | Percent |
| Carcass, whole | 100.0 | 100.0 | 66.0 | 73.0 |
| Forequarter | 51.5 | 52.0 | 69.0 | 72.5 |
| Rib | 9.5 | 8.5 | 65.0 | 71.0 |
| Chuck, square cut ...: | 26.5 | 28.5 | 73.5 | 76.0 |
| Plate | 8.5 | 7.5 | 63.5 | 74.0 |
| Brisket | 4.0 | 4.0 | 58.5 | 64.0 |
| Foreshank | 3.0 | 3.5 | 58.0 | 53.5 |
| Hindquarter | 48.5 | 48.0 | 63.0 | 73.0 |
| Rump | 5.5 | 6.0 | 63.0 | 65.5 |
| Round, rump and shank off | 14.0 | 16.0 | 79.5 | 87.0 |
| Shank | 3.0 | 3.5 | 46.0 | 44.5 |
| Sirloin | 9.0 | 10.0 | 72.5 | 76.0 |
| Short loin | 7.0 | 6.5 | 70.5 | 71.0 |
| Flank | 6.0 | 4.5 | 49.0 | 75.0 |
| Kidney knob | 4.0 | 1.5 | --- | --- |

1/ All cuts trimmed of fat exceeding that amount normally left on retail cuts (1 $\frac{1}{4}$ " to 1 $\frac{1}{2}$ ").

MEAT AND MEAT PRODUCTS

Table 6.--Beef, cured, corned, pickled, dried or dehydrated: Relation between procurement and carcass weights

| Product | Factors for determining equivalent carcass weight |
|--|---|
| Boneless beef: | : |
| Cured, corned, or pickled: 1/ | : |
| Brisket, or corned beef unspecified | 1.08 |
| Plate, or family beef | 1.31 |
| Dried or chipped beef, sliced or unsliced .. | 2.08 |
| Dehydrated beef | 3.00 |
| | : |

1/ Based on 20% gain in pickling brisket from fresh weight, and 10% gain in pickling plate.

Table 7.--Beef: Conversion factors for determining equivalent carcass weight of boneless wholesale cuts and for converting boneless wholesale cuts to equivalent bone-in cuts of various U.S. grades

| Carcass and wholesale cuts | Factors for converting boneless wholesale cuts to equivalent carcass weight | | Factors for converting boneless wholesale cuts to equivalent bone-in cuts | |
|------------------------------|---|-------------------|---|-------------------|
| | Prime, Choice, and Good | Canner and Cutter | Prime, Choice, and Good | Canner and Cutter |
| Carcass, whole | 1.52 | 1.37 | 1.52 | 1.37 |
| Forequarter | 1.60 | 1.36 | 1.45 | 1.38 |
| Rib | 1.49 | 1.33 | 1.55 | 1.41 |
| Chuck, square cut | 1.69 | 1.42 | 1.37 | 1.32 |
| Plate | 1.46 | 1.38 | 1.58 | 1.36 |
| Brisket | 1.35 | 1.21 | 1.71 | 1.56 |
| Foreshank | 1.34 | 1.00 | 1.73 | 1.88 |
| Hindquarter | 1.44 | 1.37 | 1.60 | 1.37 |
| Rump | 1.44 | 1.23 | 1.60 | 1.52 |
| Round, rump and shank off .. | 1.84 | 1.63 | 1.26 | 1.15 |
| Shank | 1.06 | .84 | 2.17 | 2.25 |
| Sirloin | 1.67 | 1.42 | 1.38 | 1.32 |
| Short loin | 1.63 | 1.33 | 1.42 | 1.41 |
| Flank | 1.12 | 1.41 | 2.05 | 1.33 |
| | : | | | |

MEAT AND MEAT PRODUCTS

Table 8.--Veal and calf: Yield of wholesale cuts from the carcass and yield of boneless meat from wholesale cuts

| Carcass and wholesale cuts | Yield of bone-in cuts | | Yield of boneless meat from wholesale cuts ^{1/} | |
|----------------------------|-----------------------|-----------------------------|--|-----------------------------|
| | Choice and Good | Standard, Utility, and Cull | Choice and Good | Standard, Utility, and Cull |
| | Percent | Percent | Percent | Percent |
| Carcass, whole | 100.0 | 100.0 | 68.5 | 69.5 |
| Foresaddle | 48.6 | 49.7 | 70.4 | 69.3 |
| Chuck | 26.1 | 27.6 | 73.5 | 72.8 |
| Breast | 14.3 | 14.3 | 62.8 | 62.6 |
| Hotel rack, 7 rib | 8.2 | 7.8 | 73.8 | 69.3 |
| Hindsaddle | 51.4 | 50.3 | 66.6 | 70.1 |
| Leg, includes sirloin .. | 36.4 | 38.8 | 72.8 | 73.5 |
| Loin | 7.0 | 6.4 | 73.3 | 69.8 |
| Flank | 4.8 | 3.4 | 53.4 | 68.5 |
| Kidney knob | 3.2 | 1.7 | --- | --- |

^{1/} All cuts trimmed of fat exceeding that amount normally left on retail cuts ($\frac{1}{4}$ " to $\frac{1}{2}"$).

Table 9.--Veal and calf: Conversion factors for determining equivalent carcass weight of bone-in cuts and for converting boneless meat to the equivalent bone-in cuts of various U.S. grades

| Carcass and wholesale cuts | Factors for converting bone-in cuts to equivalent carcass weight | | Factors for converting boneless wholesale cuts to equivalent bone-in cuts | |
|----------------------------|--|-----------------------------|---|-----------------------------|
| | Choice and Good | Standard, Utility, and Cull | Choice and Good | Standard, Utility, and Cull |
| | Percent | Percent | Percent | Percent |
| Carcass, whole | 1.00 | 1.00 | 1.46 | 1.44 |
| Foresaddle | 1.03 | .99 | 1.42 | 1.45 |
| Chuck | 1.07 | 1.04 | 1.36 | 1.38 |
| Breast | .92 | .89 | 1.59 | 1.62 |
| Hotel rack, 7 rib | 1.08 | .99 | 1.35 | 1.45 |
| Hindsaddle | .97 | 1.00 | 1.51 | 1.44 |
| Leg, includes sirloin .. | 1.06 | 1.05 | 1.38 | 1.37 |
| Loin | 1.07 | .99 | 1.36 | 1.45 |
| Flank | .78 | .97 | 1.87 | 1.48 |

MEAT AND MEAT PRODUCTS

Table 10.--Pork: Yield of boneless meat from carcass and wholesale cuts of pork, and conversion factors for determining weight of pork excluding lard

| Carcass and wholesale cuts | Approximate percent of-- | | Factors for determining equivalent weight of pork excluding lard 1/ | | | | |
|---|--------------------------|-------|---|------|---|--------|--------------|
| | Live weight | | Percent of: boneless meat, fresh or frozen | | Factors for determining equivalent weight of pork excluding lard 1/ | | |
| | Pork, excluding lard: | | : skinless : fresh | | Cured | Smoked | Ready-to-eat |
| Total pork excluding lard 2/ 3/ | 57.9 | 100.0 | 83.0 | 1.00 | --- | --- | --- |
| Packer-dressed carcass | 69.1 | --- | --- | .82 | --- | --- | --- |
| Shipper-dressed carcass | 76.1 | --- | --- | .74 | --- | --- | --- |
| Boneless skinless meat, all-cuts | --- | --- | --- | 1.20 | --- | --- | --- |
| Hams: 4/ | 13.2 | 22.8 | 85.0 | 1.02 | .94 | 1.02 | 1.15 |
| Skinned, bone in | --- | --- | 100.0 | 1.20 | 1.10 | 1.20 | 1.35 |
| Shoulders: 5/ | 86.9 | 1.04 | .98 | 1.06 | --- | --- | --- |
| Skinless, boneless | --- | --- | 100.0 | 1.20 | 1.13 | 1.22 | --- |
| Picnics: 4/ | 6.1 | 10.5 | 81.9 | .98 | .90 | .98 | 1.10 |
| Skinless, boneless | --- | --- | 100.0 | 1.20 | 1.10 | 1.20 | 1.35 |
| Butts, skinless: | 4.8 | 8.3 | 93.3 | 1.12 | 1.08 | 1.17 | 1.31 |
| Bone in (Boston) | --- | --- | 100.0 | 1.20 | 1.15 | 1.25 | 6/1.40 |
| Loins: | 10.0 | 17.3 | 78.3 | .94 | .88 | 1.04 | --- |
| Bone in | --- | --- | 87.0 | 1.04 | .98 | 1.16 | --- |
| Semiboneless | --- | --- | 100.0 | 1.20 | 1.13 | 1.33 | --- |
| Bellies: | 11.5 | 19.9 | 91.8 | 1.10 | 1.10 | 1.22 | --- |
| Bacon, slab, skin on | --- | --- | 100.0 | 1.20 | 1.20 | 1.33 | --- |
| Bacon, sliced, skin off .. | 1.8 | 3.1 | 88.0 | 1.06 | 1.06 | 1.12 | --- |
| Jowls (bacon squares) | 1.5 | 2.6 | 58.0 | .70 | .67 | .73 | --- |
| Spareribs | 1.0 | 1.7 | 10.0 | .12 | .10 | --- | --- |
| Feet, front 7/ | .1 | .2 | 20.0 | .24 | .23 | --- | --- |
| Tails | 1.0 | 1.7 | 37.4 | .45 | .43 | .45 | --- |
| Neckbones | 2.7 | 4.7 | 87.2 | 1.05 | --- | --- | --- |
| Trimmings, lean | 2.9 | 5.0 | 88.3 | 1.06 | 1.04 | 1.12 | --- |
| Fat backs and plates, not rendered 8/ | .7 | 1.2 | 87.2 | 1.05 | --- | --- | --- |
| Head, snout, and cheek meat: | .6 | 1.0 | 10.0 | .12 | .12 | --- | --- |
| Snouts, ears, and lips | 100.0 | 1.20 | 1.20 | 1.15 | 1.15 | 1.41 | --- |
| Other cuts or items: | 100.0 | 1.20 | 1.20 | 1.10 | 1.10 | 1.22 | --- |
| Canadian-style bacon | --- | --- | 91.8 | 1.10 | 1.10 | 1.22 | --- |
| Tenderloins | --- | --- | 25.0 | .30 | .29 | .30 | --- |
| Briskets 9/ | --- | --- | 90.0 | 1.08 | 1.08 | --- | --- |
| Hocks and knuckles | --- | --- | --- | --- | 2.18 | --- | --- |
| Salt pork | --- | --- | --- | --- | --- | --- | --- |
| Pork, dehydrated | --- | --- | --- | --- | --- | --- | --- |

1/ Edible offal items are excluded when converting to weight of pork excluding lard. These include brains, casings, heart, kidneys, liver, stomach or tripe, sweetbreads and tongue.

2/ Pork excluding lard is computed by deducting the weight of fats rendered into lard or pork fat from the shipper-style carcass. Shipper-style carcass is computed by adding 7% to packer-style carcass, the 7% to include 4.5% head, 2.25% leaf fat, and 0.25% kidney, or the items normally on the shipper-style carcass.

3/ 1954-63 average yield for federally inspected slaughter.

4/ Skinned hams or picnics have about 50% of the skin removed. Skinless cuts have all of the skin removed.

5/ Shoulder is picnic, butt, and plate, before cutting.

6/ This factor may also be used for Capicola butts.

7/ Because of gambrel damage hind feet usually go to tankage.

8/ Fat backs and plates amount to approximately 9% of live weight. During the 3-year period 1947-49, however, only 2.9% were sold as such and the balance rendered into lard. The amount rendered and hence, the percentage of pork excluding lard represented by these items, will vary from month to month, and year to year, depending on the price of lard and fat back or salt pork.

9/ Brisket is shoulder end of belly.

MEAT AND MEAT PRODUCTS

Table 11.--Lamb: Yield of boneless meat from carcass and wholesale cuts of various U. S. grades, and conversion factors for determining carcass weight equivalent of boneless meat and bone-in cuts

| Wholesale cuts | Percent of carcass weight | Percent of boneless meat | | Factors for determining equivalent carcass weight |
|--|---------------------------|--------------------------|------|---|
| | | Average above Cull | Cull | |
| <u>1/</u> | | | | |
| Boneless meat, all cuts: | | | | |
| Average above Cull | --- | --- | --- | 1.39 |
| Cull | --- | --- | --- | 1.60 |
| Bone-in cuts: | | | | |
| Carcass, whole <u>4/</u> | 100.0 | 72.0 | 62.5 | 1.00 |
| Foresaddle, whole | 50.0 | 67.9 | 58.5 | .94 |
| Breast, including shank ... | 14.0 | 67.0 | 57.7 | .93 |
| Chuck | 25.0 | 73.2 | 63.0 | 1.02 |
| Hotel rack | 11.0 | 72.7 | 62.6 | 1.01 |
| Hindsaddle, whole | 50.0 | 76.1 | 65.5 | 1.06 |
| Leg | 33.0 | 78.8 | 67.9 | 1.10 |
| Loin, including flank and kidney | 17.0 | 81.1 | 69.8 | 1.13 |
| <u>2/</u> | | | | |

1/ Commercial boning practice.

2/ U. S. grades for lamb are Prime, Choice, Good, Utility, and Cull.

3/ Edible offal items are excluded when converting to carcass weight. These include brains, casings, heart, liver, stomach or tripe, and tongue.

4/ Pluck out.

Table 12.--Edible offal: Relation between procurement and product weights

| Product | Factors for converting to equivalent weight of edible offal <u>1/</u> |
|--|---|
| <u>1/</u> | |
| Fresh or frozen: (all species) | |
| Brains | 1.00 |
| Cheek meat <u>2/</u> | 1.00 |
| Head meat <u>2/</u> | 1.00 |
| Heart | 1.00 |
| Kidneys <u>3/</u> | 1.00 |
| Liver | 1.00 |
| Stomach or tripe | 1.00 |
| Sweetbreads | 1.00 |
| Tail <u>2/</u> | 1.00 |
| Tongue | 1.00 |
| Cured: | |
| Corned tongue | .90 |
| Smoked tongue | 1.00 |
| Canned: | |
| Liver pate | .80 |
| Liver spread | .30 |
| Meat food product, potted or deviled | 1.00 |
| Tongue | 1.00 |

1/ Edible offal is defined as all edible parts from cattle, calves, hogs and sheep that are not included in the carcass weight, or pork excluding lard as carried in reported meat production by the U.S. Department of Agriculture.

2/ Not applicable to pork. The head and tail are on the pork shipper-style carcass from which pork excluding lard is computed, hence, pork cheek and head meat and tail are not classified as edible offal.

3/ Kidneys are usually left in beef, veal, lamb, and mutton carcasses, but they are classified as edible offal.

MEAT AND MEAT PRODUCTS

Table 13.--Canned meats - products canned by commercial methods: Raw meat content, and factors for determining carcass weight equivalent

| Canned meat products | Pounds of boneless raw meat per 100 pounds of product | | Factors for obtaining equivalent carcass weight of <u>1</u> | |
|---|---|------|---|----------------------|
| | Beef | Pork | Beef | Pork, excluding lard |
| Beans, baked with pork | --- | 1 | --- | 0.05 |
| Beans with bacon | --- | 13 | --- | .16 |
| Beans or lima beans with ham | --- | 12 | --- | .14 |
| Beef and gravy | 72 | --- | 0.99 | --- |
| Beef, corned <u>2/</u> | 143 | --- | 1.96 | --- |
| Beef, dried, sliced | 153 | --- | 2.10 | --- |
| Beef, parboiled and steam-roasted <u>2/</u> | 143 | --- | 1.96 | --- |
| Beef stew and vegetables <u>3/</u> | 25 | --- | .34 | --- |
| Beef tamales in sauce | 20 | --- | .27 | --- |
| Chili con carne with beans <u>4/</u> | 25 | --- | .34 | --- |
| Chili con carne without beans <u>4/</u> | 40 | --- | .55 | --- |
| Chow mein or chop suey vegetables: | | | | |
| With beef | 12 | --- | .16 | --- |
| With pork | --- | 12 | --- | .14 |
| Ham: | | | | |
| Canned whole ham, boneless, skinless and defatted | --- | 114 | --- | 1.37 |
| Deviled ham | --- | 98 | --- | 1.18 |
| Ham spread | --- | 50 | --- | .60 |
| Pressed ham | --- | 98 | --- | 1.18 |
| Spiced ham | --- | 98 | --- | 1.18 |
| Hash: | | | | |
| Beef | 50 | --- | .68 | --- |
| Corned beef <u>2/</u> | 50 | --- | .68 | --- |
| Pickled pigs feet: | | | | |
| Boneless | --- | 100 | --- | 1.20 |
| Semiboneless | --- | 25 | --- | .30 |
| Pork and gravy | --- | 72 | --- | .99 |
| Pork luncheon meat | --- | 98 | --- | 1.18 |
| Pork sausage | --- | 100 | --- | 1.20 |

1/ Beef factors are based on average yield of 73% from Canner and Cutter grades; pork factors on a yield of 83% boneless, skinless pork from weight of pork excluding lard.

2/ Excludes 5% of meat ingredient, which may be beef head, cheek, or heart meat.

3/ Raw-meat content is applicable to lamb or other meat stews.

4/ Excludes 25% of meat ingredient which may be beef head, cheek, or heart meat.

MEAT AND MEAT PRODUCTS

Table 14.--Commercial imports: Factors for obtaining carcass weight equivalents

| Classification | Commodity number <u>1/</u> | Factors |
|--|----------------------------|----------------|
| Beef: | | |
| Fresh or chilled | 106.1020 | 1.00 |
| Frozen | 106.1040 | 1.00 |
| Boneless beef | 106.1060 | 1.37 |
| Beef or veal | 107.4000 | 1.18 |
| Cured or pickled | 107.4500 | 1.18 |
| Canned beef | 107.5000 | 1.40 |
| Canned sausage | 107.2000 | 1.20 |
| Other sausage | 107.2520 | 1.20 |
| Beef and veal, prepared or preserved, except sausage: | 107.5500) | |
| | 107.6020) | 1.10 |
| | 107.6040) | |
| Veal: | | |
| Fresh, chilled, frozen | 106.1080 | 1.00 |
| Pork: | | |
| Fresh or chilled | 106.4020 | 1.00 |
| Frozen | 106.4040 | 1.00 |
| Hams and shoulders, not boned, not cooked | 107.3020 | 1.10 |
| Bacon, not cooked | 107.3040 | 1.10 |
| Canned hams and shoulders .. | 107.3520 | 1.35 |
| Canned bacon | 107.3540 | 1.20 |
| Other canned pork | 107.3560 | 1.18 |
| Fresh sausage | 107.1000 | 1.05 |
| Other sausage | 107.1500 | 1.20 |
| Other pork, prepared and preserved | 107.3060 | 1.10 |
| Lamb: | | |
| Fresh, chilled, or frozen .. | 106.3000 | 1.00 |
| Mutton: | | |
| Fresh, chilled, or frozen .. | 106.2020 | <u>2</u> /2.00 |
| Goat: | | |
| Fresh, chilled, or frozen .. | 106.2040 | <u>2</u> /2.00 |
| Mixed sausage: | 107.2540 | |
| Beef | | .64 |
| Pork | | .54 |

1/ Commodity numbers are from import schedule "A", U.S. Department of Commerce.2/ Most imports are boneless.

MEAT AND MEAT PRODUCTS

Table 15.--Commercial exports: Factors for obtaining carcass weight equivalents

| Classification | Commodity number <u>1/</u> | Factors | | | |
|-------------------------------|-------------------------------|---------|------|--------------------|------|
| | | Beef | Veal | Lamb and mutton | Pork |
| | | ; | ; | ; | ; |
| Beef and veal: | ; | | | | |
| Fresh or frozen beef | 011.1010 | 1.00 | --- | --- | --- |
| Fresh or frozen veal | 011.1020 | --- | 1.00 | --- | --- |
| Dried, salted, smoked beef .. | 012.9010 | 1.18 | --- | --- | --- |
| Pork: | ; | | | | |
| Salted, dried, or smoked: | ; | | | | |
| Hams and shoulders | 012.1010 | --- | --- | --- | 1.10 |
| Bacon | 012.1020 | --- | --- | --- | 1.16 |
| Other | 012.1030 | --- | --- | --- | 1.00 |
| Fresh or frozen: | ; | | | | |
| Carcasses | 011.3010 | --- | --- | --- | .82 |
| Hams and shoulders | 011.3020 | --- | --- | --- | 1.10 |
| Other | 011.3030 | --- | --- | --- | 1.00 |
| Canned | 012.1040 | --- | --- | --- | 1.18 |
| Sausage: | ; | | | | |
| Canned | 013.4010 | .66 | --- | --- | .54 |
| Not canned | 013.4020 | .66 | --- | --- | .54 |
| Lamb and mutton | 011.2000 | --- | --- | 1.00 | --- |
| Other canned meats | 012.9020 | 1.00 | --- | --- | --- |
| Canned meats n.e.c. | 013.8030 | .40 | .10 | .10 | .40 |
| Canned meat specialties | 013.8020 | .10 | --- | .10 | .10 |
| Prepared meat except canned | ; | | | | |
| n.e.c. | 013.8050 | .20 | --- | --- | .20 |

1/ Commodity numbers are from export schedule "B," U.S. Department of Commerce.

POULTRY

Table 16.--Average live weight and ready-to-cook yield
by kind and class, 1961 - 1963 1/

| Kind of poultry | Average live weight | | | | Yield, live to ready-to-cook 2/ | | | |
|--------------------|---------------------|--------|---------|---------------------|------------------------------------|------|------|---------------------|
| | | | 1961-63 | | | | | |
| | 1961 | 1962 | 1963 | weighted average | 1961 | 1962 | 1963 | weighted average |
| | : | : | : | : | : | : | : | : |
| | Pounds | Pounds | Pounds | Pounds | Pct. | Pct. | Pct. | Pct. |
| Chickens | | | | | | | | |
| Young | 3.4 | 3.4 | 3.5 | 3.4 | 72.4 | 72.3 | 72.4 | 72.4 |
| Mature | 4.9 | 4.8 | 4.8 | 4.8 | 68.8 | 68.3 | 67.7 | 68.3 |
| All | 3.5 | 3.5 | 3.6 | 3.5 | 72.0 | 72.0 | 72.0 | 72.0 |
| Turkeys | | | | | | | | |
| Fryer-roaster | 8.7 | 8.7 | 8.7 | 8.7 | 77.5 | 77.7 | 77.4 | 77.5 |
| Young | 18.8 | 19.4 | 19.6 | 19.3 | 79.6 | 79.7 | 80.0 | 79.8 |
| Old | 19.0 | 19.0 | 19.4 | 19.1 | 80.7 | 79.1 | 79.4 | 79.8 |
| All | 17.0 | 17.4 | 17.7 | 17.4 | 79.4 | 79.5 | 79.7 | 79.6 |
| Ducks | | | | | | | | |
| Ducks | 6.3 | 6.4 | 6.4 | 6.3 | 70.3 | 70.6 | 70.9 | 70.6 |
| Geese | | | | | | | | |
| Geese | 10.8 | 10.8 | 11.9 | 11.2 | 76.7 | 75.8 | 72.1 | 74.7 |

1/ Based on total poultry slaughtered under Federal inspection.

2/ Yield of ready-to-cook weight, including neck and giblets as a percentage of total live weight inspected.

POULTRY

Table 17---Broilers: Weight of parts in relation to carcass weight 1

| Broiler parts | Unit | Weight of ready-to-cook broiler carcass in ounces <u>2</u> | | | | | |
|--|---------|--|----------|----------|-----------|-----------|--|
| | | 26 | 30 | 34 | 38 | 42 | |
| Wings: | | | | | | | |
| Calculated average | Ounces | 1.9 | 2.1 | 2.4 | 2.7 | 2.9 | |
| Range for 95% of parts: : | do. | 1.6-2.1 | 1.9-2.4 | 2.1-2.7 | 2.4-2.9 | 2.7-3.2 | |
| Calculated percentage of carcass weight ..: | Percent | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 | |
| Drumsticks: | | | | | | | |
| Calculated average | Ounces | 2.1 | 2.5 | 2.8 | 3.1 | 3.5 | |
| Range for 95% of parts: : | do. | 1.8-2.5 | 2.1-2.8 | 2.4-3.2 | 2.8-3.5 | 3.1-3.8 | |
| Calculated percentage of carcass weight ..: | Percent | 7-10 | 7-9 | 7-9 | 7-9 | 7-9 | |
| Thighs: | | | | | | | |
| Calculated average | Ounces | 2.8 | 3.2 | 3.6 | 4.1 | 4.5 | |
| Range for 95% of parts: : | do. | 2.2-3.3 | 2.7-3.7 | 3.1-4.2 | 3.5-4.6 | 4.0-5.1 | |
| Calculated percentage of carcass weight ..: | Percent | 9-13 | 9-12 | 9-12 | 9-12 | 9-12 | |
| Backs: | | | | | | | |
| Calculated average | Ounces | 3.6 | 4.1 | 4.6 | 5.2 | 5.7 | |
| Range for 95% of parts: : | do. | 2.8-4.4 | 3.3-4.9 | 3.8-5.4 | 4.4-6.0 | 4.9-6.5 | |
| Calculated percentage of carcass weight ..: | Percent | 11-17 | 11-16 | 11-16 | 12-16 | 12-16 | |
| Breasts: | | | | | | | |
| Calculated average | Ounces | 8.4 | 9.7 | 10.9 | 12.2 | 13.5 | |
| Range for 95% of parts: : | do. | 7.2-9.6 | 8.4-10.9 | 9.7-12.2 | 11.0-13.4 | 12.2-14.7 | |
| Calculated percentage of carcass weight ..: | Percent | 28-37 | 28-36 | 29-36 | 29-35 | 29-35 | |
| Total weight of all parts <u>3</u> / | Ounces | 25.6 | 29.4 | 33.1 | 37.2 | 41.0 | |

1/ Table based on equations in table 3, page 28 of Marketing Research Report No. 604, Relations for Weight and Sizes of Broiler Parts to Carcass Weights, U.S. Dept. Agr., in cooperation with the University of Georgia.

2/ Ice-packed carcass, weighed after giblets and neck were removed and free water was allowed to drain from carcass for about 1 minute.

3/ Total of all parts adds to less than carcass weight due to loss from evaporation and weepage (dripping). Weight loss for all carcass in the above-mentioned study was 2.27%.

Table 18.--Factors relating to shell eggs

| U. S. weight classes, consumer grades | Minimum net weight per | | Minimum quantity of product approximating the amount in one dozen eggs | |
|--|------------------------|--------|---|--------|
| | Case (30 doz.) : | | Dried | |
| | Dozen | ; | Liquid or frozen | ; |
| | Pounds | Ounces | Pounds | Pounds |
| Shell eggs: | | | | |
| Jumbo | 56.0 | 30 | 1.88 | 0.71 |
| Extra large | 50.5 | 27 | 1.69 | .64 |
| Large | 45.0 | 24 | 1.50 | .32 |
| Medium | 39.5 | 21 | 1.31 | .16 |
| Small | 34.0 | 18 | 1.12 | .00 |
| Peewee | 28.0 | 15 | .94 | .80 |
| Average weight sold at retail | <u>1/47.0</u> | 25 | <u>1/1.57</u> | .60 |
| | | | 1.38 | .78 |
| | | | | .35 |
| | | | | .27 |
| | | | | .10 |

EGGS

1/ The approximate weight of eggs sold at retail is 1.57 pounds per dozen.

Table 19.--Estimated conversion factors for yields of liquid eggs and dried eggs and the moisture content of dried eggs, by types of product, 1961 1/

| Egg products | Liquid | Yield from 1 dozen shell eggs | Requirements for 1 pound of dried egg products | Yield of dried egg product from 100 pounds of liquid egg | Approximate moisture content of dried egg product 2/ | |
|--------------------|--------|-------------------------------------|--|--|---|---------|
| | Liquid | Dried | Liquid : Shell egg : eggs | 100 pounds of liquid egg | moisture content of dried egg product 2/ | |
| | Pounds | Pounds | Pounds | Dozens | Pounds | Percent |
| Whole eggs | 39.50 | 1.317 | 0.343 | 3.84 | 2.92 | 26.04 |
| Albumen (flake) .. | 22.55 | .752 | .099 | 7.58 | 10.10 | 13.19 |
| Albumen (spray) .. | 22.55 | .752 | .096 | 7.84 | 10.42 | 12.76 |
| Yolk | 16.95 | .565 | .257 | 2.20 | 3.89 | 45.45 |

1/ The conversion factors were taken from table 16, page 36, The Egg Products Industry of the United States, Kansas Agricultural Experiment Station Bulletin 466, N. Cent. Reg. Res. Pub. No. 154.

2/ Conversion factors were based on an average of the moisture content shown. It is recognized that moisture content may have ranged as high as 5% in some packs of dried whole egg.

FISH AND SHELLFISH

Table 20.--Factors relating to specified weights of fish and shellfish 1/

| Specification | Factors for converting to -- | | | | |
|---|------------------------------|---------------------------------|--------------------------------|-------------------------------|--|
| | Round weight <u>2/</u> | Reported weight <u>3/</u> | Dressed weight <u>4/</u> | Edible weight <u>5/</u> | |
| | | | | | |
| Fish, fresh and frozen: | : | | | | |
| Not packaged, domestically produced: | : | | | | |
| Round weight | 1.000 | 1.000 | 0.700 | 0.450 | |
| Dressed weight | 1.429 | --- | 1.000 | 0.643 | |
| Edible weight | 2.222 | --- | 1.556 | 1.000 | |
| Packaged, domestically produced: | : | | | | |
| Round weight | 1.000 | 0.338 | --- | 0.338 | |
| Packaged weight | 2.959 | 1.000 | --- | 1.000 | |
| Imports, reported weight | 1.948 | 1.000 | 1.364 | 0.877 | |
| Shellfish, fresh and frozen: | : | | | | |
| Not packaged: | : | | | | |
| (shrimp, oysters, crab, lobster, etc.): | : | | | | |
| Reported weight | --- | 1.000 | --- | 0.450 | |
| Edible weight | --- | 2.222 | --- | 1.000 | |
| Packaged: (including fresh shucked oysters, clams, shrimp, etc.) | --- | 1.000 | --- | 1.000 | |
| Fish, cured, all types: | : | | | | |
| (includes smoked, pickled, salted and dried fish): | : | | | | |
| Reported weight (i.e., cured weight) : | 1.500 | 1.000 | --- | 0.750 | |
| Edible weight | 2.000 | 1.333 | --- | 1.000 | |

1/ Factors are for specified groups and are not applicable to individual species.2/ Weight of the fish as removed from the water.3/ Production as reported to the Fish and Wildlife Service; imports as reported by the Bureau of the Census.4/ Weight of fin fish after removal of entrails, head, tail, and fins.5/ Weight of the edible portion of the fish or shellfish.

SHELLFISH

Table 21.--Net weight per gallon of specified shellfish

| Product | Pounds per gallon |
|----------------|-------------------|
| Clams | 8.75 |
| Oysters | 8.75 |
| Scallops | 8.75 |
| : | : |

CANNED FISH

Table 22.--Net weight per standard case of specified canned fish and shellfish

| Product | Pounds per case |
|------------------------------------|-----------------|
| Alewives | 45 |
| Anchovies | 31.25 |
| Mackerel | 45 |
| Salmon | 48 |
| Sardines: | |
| Maine | 23.4 |
| Pacific | 45 |
| Shad | 45 |
| Tuna and tuna-like fish: | |
| Solid | 21 |
| Chunks | 19.5 |
| Flakes and grated | 18 |
| Crab meat, natural | 19.5 |
| Shrimp, wet pack <u>1/</u> | 15 |
| Clam products: | |
| Whole and minced <u>1/</u> | 15 |
| Juices, chowders, broth, etc. | 30 |
| Oysters, natural <u>1/</u> | 14 |
| All other | 48 |
| : | : |

1/ "Cut out" or "drained" weights of can contents are given for shrimp, whole or minced clams, and oysters. Net can contents are given for other products.

Table 23.--Oil-bearing materials: Factors relating to yield of oil and meal per unit crushed 1/

| Oil-bearing material | Unit | Factors for obtaining-- | | | | | |
|----------------------------|--------------|-------------------------|---------|-----------------------------|---------|--------------------|---------|
| | | Crude oil yield | | Loss in refining crude oil: | | Cake or meal yield | |
| | | Pounds | Percent | Pounds | Percent | Pounds | Percent |
| Babassu kernels | Ton | 1,260 | 63.00 | 75.6 | 6.0 | --- | --- |
| Castor beans 2/ | Ton | 930 | 46.50 | 3/ | 1,000 | 50.00 | 50.00 |
| Copra (coconut oil) | Ton | 1,280 | 64.00 | 84.9 | 56.3 | 704 | 35.20 |
| Corn germ 4/ | Ton | 750 | 37.50 | 56.3 | 7.50 | 1,075 | 53.70 |
| Cottonseed | Ton | 337 | 16.85 | 22.2 | 6.58 | 930 | 46.50 |
| Flaxseed (linseed) 5/ | Bu. (56 lb.) | 20.2 | 36.07 | NA | NA | 37.20 | 66.43 |
| Mustard seed | Ton | 460 | 23.00 | 3/ | 3/ | --- | --- |
| Olives | Ton | 300 | 15.00 | 3/ | 3/ | --- | --- |
| Palm kernels | Ton | 940 | 47.00 | 63.0 | 6.7 | --- | --- |
| Peanuts 6/ | Ton | 574 | 28.70 | 28.4 | 4.94 | 853 | 42.66 |
| Farmers' stock | Ton | 806 | 40.29 | 39.8 | 4.94 | 1,197 | 59.84 |
| Shelled peanuts 7/ | Ton | 700 | 35.00 | NA | NA | NA | NA |
| Rapeseed | Ton | 640 | 32.00 | 3/ | 3/ | 1,300 | 65.00 |
| Safflower seed | Bu. (56 lb.) | 26.3 | 47.00 | 3/ | 3/ | --- | --- |
| Sesame seed | Bu. (60 lb.) | 10.92 | 18.20 | .40 | 3.70 | 47.14 | 78.57 |
| Soybeans 8/ | Ton | 700 | 35.00 | NA | NA | NA | NA |
| Sunflower seed | Ton | 337 | 16.85 | 3/ | 3/ | --- | --- |
| Tung nuts (fruit basis) 8/ | Ton | 337 | 16.85 | 3/ | 3/ | --- | --- |

1/ Based on 1959-63 crop-year averages for soybeans, cottonseed, flaxseed, peanuts, copra (coconut oil) and tung nuts.

2/ Castor oil is reported also as dehydrated. To convert crude to dehydrated, multiply by 0.88; to convert dehydrated to crude, multiply by 1.136.

3/ Not customarily reported as refined oil.

4/ Includes both wet and dry processing. The wet process accounts for about 90% of the total crush. A bushel of corn degerned by the wet process yields about 1.8 pounds of oil, as compared to an oil yield of less than half as much by the dry process.

5/ Total outturn per bushel of flaxseed processed may exceed 56 pounds since some mills add flaxseed screenings to the meal.

6/ See separate tables on flaxseed, peanuts, and soybeans for additional factors.

7/ Straight run peanuts included shelled No. 1 and 2 grade and oil stock. Estimated oil content of peanuts exported averages about 43.5%. Some additional shells are added to residue to produce cake and meal.

8/ 15% moisture.

OILS AND OILSEEDS

Table 24.--Average yields of selected oilseeds per harvested acre 1/

| Oil-bearing material | Yield per acre | | | |
|------------------------------|-----------------------|-------------------|------------------------------|---------------------------------|
| | Bushels of product 2/ | Pounds of product | Pounds of crude oil produced | Pounds of cake or meal produced |
| Castor beans | 3/ | 1,300 | 605 | 650 |
| Cottonseed | 4/ | 800 | 135 | 370 |
| Flaxseed | 9.3 | 520 | 188 | 345 |
| Peanuts (farmers' stock) ... | 5/ | 1,260 | 362 | 538 |
| Soybeans | 24.2 | 1,450 | 264 | 1,140 |

1/ Yields of oilseeds are 5-year, 1959-63, averages. Yields of oil and cake or meal are based on the 5-year average yields of oilseeds converted to oil and cake or meal equivalents on the basis of the 5-year, 1959-63, crop-year average percentage outturns, as follows:

Oil outturn:

Castor beans, 46.5% (estimated); cottonseed, 16.8%; flaxseed (linseed oil), 36.1%; peanuts, 28.7%; soybeans, 18.2%.

Cake or meal outturn:

Castor beans, 50.0% (estimated); cottonseed, 46.5%; linseed, 66.4%; peanuts, 42.7%; soybeans, 78.6%.

2/ Bushel weights: Flaxseed, 56 pounds; soybeans, 60 pounds.

3/ Castor beans usually are reported in short tons. Yield per acre is 0.650 short tons. Almost all U.S. average is now irrigated, consequently current yields are about 1,500 pounds per acre.

4/ Cottonseed usually is reported in short tons. Yield per acre is 0.400 short tons.

5/ Peanuts frequently are reported in short tons. Yield per acre is 0.630 short tons.

OILS AND OILSEEDS

Table 25.--Factors for obtaining fat content of food products 1/

| Product | Factors |
|--|---------|
| Edible fats and oils: | |
| Butter | 0.805 |
| Cooking and salad oils | 1.00 |
| Lard | 1.00 |
| Margarine | .805 |
| Oleo stock and oleo stearin | 1.00 |
| Shortening | 1.00 |
| Other foods: | |
| Cereal, pre-mixed (military) | .10 |
| Custard or pudding powder | .05 |
| Mayonnaise | .71 |
| Peanuts, salted 2/ | .02 |
| Peanut butter | .50 |
| Potato chips and shoestring potatoes | .35 |
| Salad dressing | .40 |
| Baking mixes: | |
| Bread or doughnut mix | .05 |
| Cake mix | .12 |
| Gingerbread mix | .09 |
| Baked goods: | |
| Biscuits | .08 |
| Bread | .02 |
| Cake | .13 |
| Cookies | .12 |
| Crackers | .10 |
| Doughnuts | .22 |
| Pies | .10 |
| Pudding, plum or fruit | .07 |

1/ Butter content of products is covered in Dairy Products section.

2/ Approximate amount of fat added during the roasting process. The unroasted peanut contains from 45 to 50% fat.

OILS AND OILSEEDS

Table 26.--Miscellaneous factors for oils and oilseed products

| Product | Factors for obtaining-- | | | |
|------------------------------|----------------------------------|---|---------------------------|---------------------------|
| | Refined oil from crude oil | Equivalent crude oil from refined oil | Pounds from gallons | Gallons from pounds |
| | : | : | : | : |
| Cooking and salad oils | --- | --- | 7.4 | 0.135 |
| French dressing | --- | --- | 8.7 | .115 |
| Mayonnaise | --- | --- | 8.0 | .125 |
| Oil and vinegar dressing .. | --- | --- | 8.4 | .119 |
| Salad dressing | --- | --- | 8.7 | .115 |
| Sandwich spread | --- | --- | 8.7 | .115 |
| : | | | | |
| Babassu oil | 0.93 | 1.08 | 7.5 | .133 |
| Castor oil | <u>1/</u> | <u>1/</u> | 8.0 | .125 |
| Coconut oil | .93 | 1.08 | 7.5 | .133 |
| Corn oil | .93 | 1.08 | 7.7 | .130 |
| : | | | | |
| Cottonseed oil | .93 | 1.08 | 7.7 | .130 |
| Fish oil (menhaden) | <u>1/</u> | <u>1/</u> | 7.7 | .130 |
| Grain screenings | <u>1/</u> | <u>1/</u> | 7.7 | .130 |
| Linseed oil | <u>1/</u> | <u>1/</u> | 7.7 | .130 |
| : | | | | |
| Murumuru oil | <u>1/</u> | <u>1/</u> | 7.5 | .133 |
| Mustardseed oil | <u>1/</u> | <u>1/</u> | 7.7 | .130 |
| Oiticica oil | <u>1/</u> | <u>1/</u> | 7.8 | .128 |
| Olive oil | <u>1/</u> | <u>1/</u> | 7.6 | .132 |
| : | | | | |
| Ouricury oil | <u>1/</u> | <u>1/</u> | 7.5 | .133 |
| Palm oil | .93 | 1.08 | 7.7 | .130 |
| Palm kernel oil | .93 | 1.08 | 7.5 | .133 |
| Peanut oil | .95 | 1.05 | 7.7 | .130 |
| : | | | | |
| Perilla oil | <u>1/</u> | <u>1/</u> | 7.7 | .130 |
| Rapeseed oil | <u>1/</u> | <u>1/</u> | 7.7 | .130 |
| Safflower oil | <u>1/</u> | <u>1/</u> | 7.7 | .130 |
| Sesame seed oil | <u>1/</u> | <u>1/</u> | 7.7 | .130 |
| : | | | | |
| Soybean oil | .96 | 1.04 | 7.7 | .130 |
| Sunflower seed oil | <u>1/</u> | <u>1/</u> | 7.7 | .130 |
| Tucum oil | <u>1/</u> | <u>1/</u> | 7.5 | .133 |
| Tung oil | <u>1/</u> | <u>1/</u> | 7.8 | .128 |
| : | | | | |

1/ Not customarily reported as refined oil.

Additional factors:

A tank car usually contains about 60,000 pounds or 8,000 gallons of oil.

A standard size oil-drum contains 55 gallons of oil.

PEANUTS AND PEANUT PRODUCTS

Table 27.--Miscellaneous factors for peanuts and peanut products

| For obtaining-- | Factors |
|---|---------|
| Peanuts, unshelled: 1/ | |
| Cleaned unshelled stock from farmers' stock 2/ | 0.95 |
| Equivalent farmers' stock from cleaned unshelled stock | 1.05 |
| Peanuts, shelled: 1/ | |
| Equivalent farmers' stock from total shelled peanuts | 1.41 |
| Total shelled peanuts from farmers' stock | .71 |
| Shelled oil-stock peanuts from farmers' stock (oil stock pickouts) | .055 |
| Shelled edible peanuts from farmers' stock | .655 |
| Equivalent farmers' stock from shelled edible peanuts 3/ | 1.53 |
| Peanut butter: | |
| Peanut butter from farmers' stock peanuts | .622 |
| Equivalent farmers' stock peanuts from peanut butter | 1.61 |
| Peanut butter from shelled edible peanuts 4/ | .95 |
| Equivalent shelled edible peanuts from peanut butter | 1.05 |
| Pounds of peanut butter from short tons of farmers' stock | 1,244 |
| Equivalent short tons of farmers' stock from pounds of peanut butter | .00080 |
| Oil, oilcake, and meal: 1/ | |
| Yield per short ton of farmers' stock: 5/ | |
| Pounds of crude peanut oil | 574 |
| Pounds of peanut cake or meal | 853 |
| Estimated product outturn per short ton of shelled peanuts crushed: | |
| Pounds of crude peanut oil | 806 |
| Pounds of peanut cake and meal 6/ | 1,197 |

1/ Based on 1958-1962 crop averages.

2/ Farmers' stock peanuts are uncleared, unshelled peanuts, as they are harvested.

3/ Includes shelled oil stock peanuts.

4/ Including additives.

5/ Yields from farmers' stock are provided for statistical convenience. In actual practice, only the shelled peanuts are crushed for oil. Some of the shells are then added to the residue to produce the cake and meal.

6/ Some additional shells are added to the residue to produce cake and meal.

SOYBEAN PRODUCTS

Table 28.--Factors relating to yields of specified soybean products

| Product | Factors for obtaining-- | | | | |
|--|--|---|---|--|---|
| | Pounds of product from pound of soybeans | Equivalent pounds of soybeans from pound of product | Pounds of product from bushel of soybeans | Pounds of product from short ton of soybeans | Pounds of product from bushel of soybeans |
| Soybean oil, crude ^{1/} | .182 | 5.49 | 10.92 | .092 | 364 |
| Soybean oil, refined ^{1/} | .175 | 5.70 | 10.52 | .095 | 350 |
| Soybean cake or meal ^{1/} | .786 | 1.27 | 47.14 | .0212 | 1,572 |
| Flour, flakes or grits | | | | | |
| Full fat | .833 | 1.20 | 50.0 | .02 | 1,666 |
| Low fat | .592 | 1.69 | 35.5 | .028 | 1,184 |
| Defatted (industrial) | .558 | 1.79 | 33.5 | .03 | 1,116 |

^{1/} 1959-63 crop-year average.

FLAXSEED PRODUCTS

Table 29.--Factors relating to yields of specified products

| Product | Factors for obtaining-- | | | | |
|--|--|---|---|--|---|
| | Pounds of product from pound of flaxseed | Equivalent pounds of flaxseed from pound of product | Pounds of product from bushel of flaxseed | Pounds of product from short ton of flaxseed | Pounds of product from bushel of flaxseed |
| Linseed oil, crude ^{1/} | .361 | 2.77 | 20.2 | .0495 | 722 |
| Linseed oil, refined | .334 | 2.99 | 18.7 | .0535 | 668 |
| Linseed cake or meal ^{1/} | .664 | 1.51 | 37.2 | .0270 | 1,328 |

^{1/} 1959-63 crop-year average.

OIL CAKE AND MEAL

Table 30.--Yields of oil cake and meal from various oil-bearing materials

| Type of cake or meal | Factors for obtaining pounds of cake or meal | | |
|------------------------------|--|--|---|
| | From pounds of oil-bearing material | From bushels of oil-bearing material | From short tons of oil-bearing material |
| | 1/ | | |
| Animal feeds: | | | |
| Copra | 0.352 | --- | 704 |
| Cottonseed | .465 | --- | 930 |
| Flexseed (linseed) 2/ | .664 | 37.2 | 1,328 |
| Peanuts (farmers' stock) ... | .4266 | --- | 853 |
| Soybeans | .786 | 47.1 | 1,572 |
| Not used for animal feeds: | | | |
| Castor beans | .50 | 23.0 | 1,000 |

1/ Based on bushel weights as follows:

Flaxseed 56 pounds
 Soybeans 60 pounds
 Castor beans 46 pounds

2/ Includes some material from screenings.

DRY EDIBLE BEANS

Table 31.--Factors relating to dry edible beans and products 1/

| Product | Factors for obtaining-- | | Product from dry beans |
|--------------------------------------|------------------------------|---|------------------------------|
| | Dry beans from product | : | |
| | : | : | |
| All dry beans 2/ | 1.0 | | 1.0 |
| Canned baked beans | .31 | | 3.23 |
| Canned lima beans | .389 | | 2.57 |
| Canned navy beans | .317 | | 3.15 |
| Canned kidney beans | .376 | | 2.66 |
| Canned dry beans, unspecified | .361 | | 2.77 |
| Canned bean soup | .192 | | 5.21 |
| Canned soup, unspecified 3/ | .0192 | | 52.1 |
| Canned meat and beans | .167 | | 5.99 |
| Canned meat and vegetable stew | .08 | | 12.50 |
| Dehydrated baked beans | 1.13 | | .885 |
| Dehydrated bean soup | 1.10 | | .909 |
| Dehydrated vegetable stew mix | .17 | | 5.88 |
| Dried bean flour | 1.25 | | .80 |

1/ Based on raw bean moisture content of 17%.

2/ Including blackeye (or dry blackeyed peas), pinto, chick peas (or garbanzos), lima (large and baby), pea (navy), pink, red kidney, small red (Mexican) and yelloweye.

3/ Estimated to contain 10% bean soup.

DRY EDIBLE PEAS

Table 32.--Factors relating to dry edible peas and products 1/

| Product | Factors for obtaining-- | |
|--|-----------------------------|-----------------------------|
| | Dry peas from product | Product from dry peas |
| All dry whole peas 2/ | 1.0 | 1.0 |
| All dry split peas | 1.22 | .82 |
| Canned pea soup | .186 | 5.38 |
| Canned soups, unspecified 3/ | .0372 | 26.9 |
| Soup concentrate | | |
| Dry soup powder.....} | | |
| Dehydrated soup, unspecified) 4/ | .625 | 1.6 |
| Soya mix) | | |
| Dehydrated vegetable stew mix | .17 | 5.88 |
| Dehydrated green pea soup | 1.049 | .953 |
| Dehydrated yellow pea soup | 1.096 | .912 |
| Dehydrated pea soup, unspecified | 1.072 | .933 |
| Dried pea flour | 1.25 | .8 |

1/ Based on raw pea moisture content of 14.5%.

2/ Including green and yellow whole peas, Alaskas, etc.; also lentils.

3/ Estimated to contain 20% pea soup.

4/ Estimated to contain 50% pea flour.

WHEAT AND WHEAT PRODUCTS

Table 33.--Factors relating to whole grain and processed wheat

| Commodity | Unit | Factors for converting-- | | |
|---|--------------|--------------------------|------------|--|
| | | Units of | Units of | |
| | | wheat to | commodity | |
| | | pounds of | to bushels | |
| | | commodity | of wheat | |
| Wheat, whole grain | Pound | 1.0 | 0.01667 | |
| | Bushel | 60.0 | 1.0 | |
| | Short ton | 2,000.0 | 33.33 | |
| | Metric ton | 2,204.622 | 36.744 | |
| | Long ton | 2,240.0 | 37.33 | |
| White flour | Pound | .730 | .0228 | |
| | 100-lb. sack | 73.00 | 2.283 | |
| | Bushel | 43.80 | --- | |
| | Short ton | 1,460.0 | 45.66 | |
| | Metric ton | 1,609.4 | 50.33 | |
| | Long ton | 1,635.2 | 51.14 | |
| Semolina or farina 1/ | Pound | .730 | .0228 | |
| | 100-lb. sack | 73.00 | 2.283 | |
| | Bushel | 43.80 | --- | |
| | Short ton | 1,460.0 | 45.66 | |
| | Metric ton | 1,609.4 | 50.33 | |
| | Long ton | 1,635.2 | 51.14 | |
| Whole wheat flour or cracked wheat | Pound | .980 | .01701 | |
| | 100-lb. sack | 98.0 | 1.700 | |
| | Bushel | 58.8 | --- | |
| | Short ton | 1,960.0 | 34.01 | |
| | Metric ton | 2,160.5 | 37.49 | |
| | Long ton | 2,195.2 | 38.09 | |
| Wheat meal or whole wheat meal ... | Pound | .990 | .01684 | |
| | 100-lb. sack | 99.0 | 1.684 | |
| | Bushel | 59.4 | --- | |
| | Short ton | 1,980.0 | 33.67 | |
| | Metric ton | 2,182.6 | 37.12 | |
| | Long ton | 2,217.6 | 37.71 | |

1/ The 73% extraction rate for semolina and farina comprise approximately 58% semolina or farina and 15% flour.

WHEAT AND WHEAT PRODUCTS

Table 34.--Factors relating to wheat and white flour content of specified products 1/

| Product | Factors for converting-- | | | | |
|---|--------------------------|--------------|--------------|------------------|--|
| | Bushels of | Pounds of | Pounds of | Pounds of | |
| | wheat to | product | white flour | product to | |
| | pounds of | :to bushels: | :to pounds | :pounds of | |
| : product | | : of wheat | : of product | : of white flour | |
| Baked goods: 2/ | : | | | | |
| Bread: | : | | | | |
| Brown bread | 109.5 | .0091 | 2.50 | .40 | |
| Cracked wheat bread, | : | | | | |
| 18% cracked wheat | 81.5 | .0123 | 1.86 | .54 | |
| Hearth bread and hard rolls | 66.1 | .0150 | 1.51 | .66 | |
| Raisin bread | 112.6 | .0089 | 2.57 | .39 | |
| Rye bread, 20% rye flour | 76.6 | .0130 | 1.75 | .57 | |
| White pan bread | 69.2 | .0144 | 1.58 | .63 | |
| Whole wheat bread, 100% whole | : | | | | |
| wheat flour | 93.3 | .0107 | --- | --- | |
| Cake: medium rich formula | : | | | | |
| Angel food cake | 261.1 | .0039 | 5.96 | .17 | |
| Chocolate cake | 190.1 | .0053 | 4.34 | .23 | |
| Fruit cake | 446.8 | .0023 | 10.2 | .10 | |
| Pound cake, yellow and rich | 184.0 | .0055 | 4.2 | .24 | |
| White and yellow cake | 171.3 | .0059 | 3.91 | .26 | |
| Cookies: | : | | | | |
| Cookie bars (military) | 112.1 | .0089 | 2.56 | .39 | |
| Cookie sandwich | 99.4 | .0100 | 2.27 | .44 | |
| Fig bars | 168.6 | .0059 | 3.85 | .26 | |
| Wafers, vanilla or butter and | : | | | | |
| other cookies | 109.5 | .0091 | 2.50 | .40 | |
| Crackers: | : | | | | |
| Crackers (military) | 48.2 | .0207 | 1.10 | .91 | |
| Soda crackers, saltines, oysterettes | 43.8 | .0228 | 1.00 | 1.00 | |
| Graham crackers, 14% whole wheat | : | | | | |
| flour | 79.7 | .0125 | 1.82 | .55 | |
| Pretzels or pilot bread | 45.1 | .0221 | 1.03 | .97 | |
| Doughnuts: | : | | | | |
| Doughnuts, cake | 106.8 | .0093 | 2.44 | .41 | |
| Doughnuts, yeast-raised | 83.2 | .0121 | 1.9 | .53 | |
| Rolls, soft | 70.1 | .0141 | 1.60 | .62 | |
| Sweet baked foods, yeast leavened | 106.4 | .0093 | 2.43 | .41 | |
| Flour mixes: | : | | | | |
| Bread mix | 49.9 | .0201 | 1.14 | .88 | |
| Cake mix | 109.5 | .0091 | 2.50 | .40 | |
| Doughnut or waffle mix | 66.6 | .0150 | 1.52 | .66 | |
| Pancake mix | 97.2 | .0101 | 2.22 | .45 | |
| Macaroni and noodle products: | : | | | | |
| Macaroni or spaghetti | 42.0 | .0237 | 3/.96 | 1.04 | |
| Noodles, 5.5% egg or egg yolk solids .. | 44.7 | .0222 | 1.02 | .98 | |
| Spaghetti, canned | 109.5 | .0091 | 2.50 | .40 | |

Continued--

WHEAT AND WHEAT PRODUCTS

Table 34.--Factors relating to wheat and white flour content
of specified products 1/--Continued

| Product | Factors for converting-- | | | | |
|---------------------------------------|--------------------------|--------------|--------------|--------------|-------------|
| | : Bushels of | : Pounds of | : Pounds of | : Pounds of | : Pounds of |
| | : wheat to | : product | : wheat | : product to | : wheat |
| | : pounds of | : to bushels | : to pounds | : pounds of | : wheat |
| | : product | : of wheat | : of product | : wheat | |
| Wheat cereals: | : | | | | |
| <u>Wheat cereals, ready-to-serve:</u> | : | | | | |
| 40% bran flakes | 29 | .0345 | .49 | 2.04 | |
| Malted cereal, granules | 53 | .0190 | .88 | 1.14 | |
| Malted wheat flakes | 55 | .0183 | .91 | 1.10 | |
| Puffed wheat | 51 | .0196 | .85 | 1.18 | |
| Shredded wheat 1/ | 55 | .0182 | 1/.92 | 1.09 | |
| Sugar-coated wheat cereal | 103 | .0097 | 1.72 | .58 | |
| Premixed cereal 4/ | 240 | .0042 | 4.00 | .25 | |
| Precooked infant-type cereal | 120 | .0083 | 2.00 | .50 | |
| Wheat flakes | 65 | .0154 | 1.08 | .93 | |
| <u>Wheat cereals, uncooked and</u> | : | | | | |
| <u>quick-cooking:</u> | : | | | | |
| Bulgur | 52 | .0192 | .87 | 1.15 | |
| Rolled wheat | 56 | .0180 | .93 | 1.08 | |
| Whole wheat meal | 59 | .0169 | .98 | 1.02 | |
| | : | | | | |

1/ All factors are based on 60 pounds of wheat per bushel except that for shredded wheat cereal which is based on 54 pounds per bushel.

2/ Baked and finished weight.

3/ About 4% moisture loss below flour's normal moisture content.

4/ Premixed cereal is ready to eat.

CORN AND CORN PRODUCTS

Table 35.--Factors relating to corn content of specified products 1/

| Product | Factors for converting-- | | | |
|---|--------------------------|--------------|-------------|-------------|
| | : Bushels of | : Pounds of | : Pounds of | : Pounds of |
| | : corn to | : product | : corn to | : product |
| | : pounds of | : to bushels | : pounds of | : to pounds |
| | | : product | : of corn | : product |
| | | : of corn | : product | : of corn |
| Corn, shelled 2/ | 56.0 | 0.0179 | 1.00 | 1.00 |
| Corn cones or maize cones | 54.9 | .0182 | .98 | 1.02 |
| Corn meal, degermed | 31.6 | .0316 | .564 | 1.77 |
| Corn meal, nondegermed, regular | 50.0 | .0200 | .893 | 1.12 |
| Corn flour | 33.0 | .0303 | .589 | 1.70 |
| Corn grits or hominy grits | 29.0 | .0345 | .518 | 1.93 |
| Hominy, canned | 145.0 | .0069 | 2.589 | .39 |
| Hominy, dry | 27.3 | .0366 | .488 | 2.05 |
| Cornstarch, 10% moisture 3/ | 34.4 | .0291 | .614 | 1.63 |
| Cornstarch, pearl, 12% moisture or laundry starch 3/ | 35.2 | .0284 | .629 | 1.59 |
| Corn sugar: | | | | |
| Dextrose, hydrate, 8% moisture | 30.0 | .0333 | .536 | 1.87 |
| Dextrose, anhydrous, moisture free 4/ ... | 27.5 | .0364 | .491 | 2.04 |
| Corn sirup, 43° Baume, 19.73% moisture, 42% dextrose equivalent 3/ | 37.6 | .0266 | .672 | 1.49 |
| Corn flakes or corn cereal | 21.5 | .0465 | .384 | 2.60 |
| Corn-soya cereal 5/ | 33.6 | .0297 | .60 | 1.66 |
| Precooked infant-type cereal | 500.0 | .0020 | 8.929 | .11 |
| Premixed cereal | 101.8 | .0098 | 1.818 | .55 |
| Pancake mix | 330.0 | .0030 | 5.882 | .17 |
| Pudding powder, 33% cornstarch | 103.8 | .0096 | 1.854 | .54 |
| Chocolate pudding powder, 18% cornstarch | 186.6 | .0054 | 3.333 | .30 |
| Corn oil: | | | | |
| Refined | 1.6 | .625 | .0286 | 35.0 |
| Crude | 1.8 | .556 | .0321 | 31.1 |
| Corn feeds: Gluten feed, gluten meal, and: corn oil meal or cake 6/ | 14.9 | .0671 | .266 | 3.76 |
| Hominy feed | 20.0 | .050 | .357 | 2.80 |

1/ All factors are based on 56 pounds of shelled corn per bushel.

2/ Five bushels of shelled corn = 1 bbl.; 10 bushels of ear corn = 1 bbl.; 70 lb. of ear corn = 1 bushel of shelled corn.

3/ From 17% moisture corn.

4/ Based on continued reprocessing of uncrystallized dextrose liquors.

5/ Corn-soya cereal contains approximately 34% soya flour.

6/ Conversion factors cover all corn feeds combined. Data are not available to show separate components of corn feeds, though gluten feed is generally about 55-60% of total corn feeds, gluten meal around 40% and corn oil meal only about 2%.

OATS AND OAT PRODUCTS

Table 36.--Factors relating to oat content of specified products

| Product | Factors for converting-- | | | | |
|--------------------------------|--------------------------|--------------|-------------|-------------|--|
| | : Bushels of | : Pounds of | : Pounds of | : Pounds of | |
| | : oats to | : product | : oats to | : product | |
| | : pounds of | : to bushels | : pounds of | : to pounds | |
| | : product | : of oats | : product | : of oats | |
| <u>32 lb./bu.</u> | : | | | | |
| Oats, unprocessed | 32.0 | 0.03125 | 1.0 | 1.0 | |
| Oat flour | 20.3 | .04926 | .634 | 1.577 | |
| Rolled oats or oatmeal: | | | | | |
| Quick cooking or regular ..: | 18.5 | .05405 | .579 | 1.730 | |
| Ready-to-eat cereal | 20.5 | .04878 | .641 | 1.560 | |
| Precooked infant-type cereal.: | 100.1 | .010 | 3.128 | .320 | |
| <u>38 lb./bu. 1/</u> | : | | | | |
| Oats, unprocessed | 38.0 | .02632 | 1.0 | 1.0 | |
| Oat flour | 24.1 | .04149 | .634 | 1.577 | |
| Rolled oats or oatmeal: | | | | | |
| Quick cooking or regular ..: | 22.0 | .04545 | .579 | 1.730 | |
| Ready-to-eat cereal | 24.3 | .04115 | .641 | 1.560 | |
| Precooked infant-type cereal.: | 118.9 | .0084 | 3.128 | .320 | |

1/ This bushel weight represents the bulk of the oats processed for human food.

BARLEY AND BARLEY PRODUCTS

Table 37.--Factors relating to barley and malt content of specified products

| Product | Factors for converting-- | | | | |
|--------------------------------|--------------------------|--------------|-------------|-------------|-------------|
| | : Bushels | : Pounds of | : Pounds of | : Pounds of | |
| | : of barley | : product | : barley to | : product | : product |
| | : to pounds | : to bushels | : pounds of | : to pounds | : to pounds |
| | : of product | : of barley | : product | : of barley | : of malt |
| Barley, unprocessed | 48.0 | 0.02083 | 1.0 | 1.0 | 0.708 |
| Barley flour | 21.8 | .04587 | .454 | 2.203 | --- |
| Pearl barley | 26.4 | .03788 | .550 | 1.818 | --- |
| Malt | 34.0 | .02941 | .708 | 1.412 | 1.0 |
| Malt sirups and malt extract.: | 27.2 | .03676 | .567 | 1.765 | 1.25 |
| Malted cereal granules | 160.0 | .00625 | 3.333 | .300 | .212 |

1 bushel barley weighing 48 lb. yields 1 bushel malt weighing 34 pounds.

RYE AND RYE PRODUCTS

Table 38.--Factors relating to rye content of specified products

| Product | Factors for converting-- | | | | |
|----------------------------------|--|--|---|------------------------------------|------------------|
| | Bushels of rye to pounds of product | Pounds of product to bushels of rye | Pounds of rye to pounds of product | Pounds of product to product | Pounds of rye |
| Rye, unprocessed or rolled | 56.0 | 0.0179 | 1.0 | 1.0 | |
| Rye flour | 44.8 | .0223 | .80 | 1.250 | |
| Rye bread, 20% rye flour | 224.0 | .0045 | 4.00 | .250 | |
| Pancake mix, 5% rye flour | 903.2 | .0011 | 16.13 | .062 | |
| : | | | | | |

1 bushel of rye yields 1 bushel rye malt.

1 bushel rye malt weighs 40 pounds.

BUCKWHEAT AND BUCKWHEAT PRODUCTS

Table 39.--Factors relating to buckwheat content of specified products

| Product | Factors for converting-- | | | | |
|---|--|--|---|------------------------------------|------------------------|
| | Bushels of buckwheat to pounds of product | Pounds of product to bushels of buckwheat | Pounds of buckwheat to pounds of product | Pounds of product to product | Pounds of buckwheat |
| Buckwheat, unprocessed | 48.0 | 0.0208 | 1.0 | 1.0 | |
| Buckwheat flour | 28.8 | .0347 | .60 | 1.67 | |
| Buckwheat cereals | 22.3 | .0448 | .46 | 2.15 | |
| Buckwheat pancake mix, 42% buckwheat flour | 68.6 | .0146 | 1.43 | .70 | |
| : | | | | | |

RICE AND RICE PRODUCTS

Table 40.--Factors relating to rice content of specified products 1/

| Product | Factors for converting-- | | | |
|---------------------------------|--------------------------|------------|----------------|------------|
| | Cwt. of | Pounds of | Pounds of | Pounds of |
| | rough rice | product to | milled rice | product to |
| | to pounds | cwt. of | to pounds | pounds of |
| of product | of rough rice | of product | of milled rice | |
| Rice--Rough | 100.0 | 0.01000 | 1.5038 | 0.6650 |
| Brown | 82.0 | .01220 | 1.2330 | .8110 |
| Milled 2/ | 66.5 | .01504 | 1.0000 | 1.0000 |
| Brewers | 3.0 | .33333 | .0451 | 22.1667 |
| Bran | 10.9 | .09174 | .1639 | 6.1009 |
| Polish | 1.6 | .62500 | .0241 | 41.5625 |
| Rice grits | 69.5 | .01439 | 1.0451 | .9568 |
| Rice flour | 64.2 | .01558 | .9654 | 1.0358 |
| Rice starch | 49.1 | .02037 | .7383 | 1.3544 |
| Precooked rice | 63.9 | .01565 | .9609 | 1.0407 |
| Dehydrated precooked rice | 60.5 | .01653 | .9098 | 1.0992 |
| Rice cereals, ready-to-serve: | | | | |
| Puffed rice | 66.5 | .01504 | 1.0000 | 1.0000 |
| Rice flakes | 61.2 | .01634 | .9203 | 1.0866 |

1/ Rice conversion factors vary substantially depending on the type and variety of rice milled. These data are based on national averages over a period of time and are not a perfect measure of any crop's milling yield.

2/ Excluding brewers' rice.

Note: Miscellaneous factors relating to rice:

1 bushel rough rice equals 45 pounds

1 cwt. rough rice equals:

100 pounds
2.22 bushels

1 barrel rough rice equals:

162 pounds
3.6 bushels

GRAIN SORGHUM AND GRAIN SORGHUM PRODUCTS

Table 41.--Factors relating to grain sorghum content of specified products

| Product | Factors for converting-- | | | | |
|---|--------------------------|-------------|-------------|-------------|-------------|
| | : Cwt. of | : Pounds of | : Pounds of | : Pounds of | : Pounds of |
| | : grain | : product | : grain | : product | |
| | : sorghum | : to | : sorghum | : to | pounds |
| | : pounds of | : grain | : to | : pounds | : of grain |
| | : product | : sorghum | : of | : product | : sorghum |
| Grain sorghum, unprocessed | 100.0 | 0.01 | 1.00 | 1.00 | |
| Grain sorghum starch, 10% moisture <u>1/</u> | 61.7 | 0.0162 | 0.617 | 1.62 | |
| Grain sorghum starch, pearl or laundry starch, 12% moisture <u>1/</u> | 63.1 | 0.0158 | 0.631 | 1.58 | |
| Dextrose, crystalline <u>2/</u> | 54.4 | 0.0184 | 0.544 | 1.84 | |
| Grain sorghum feeds, gluten feed, gluten meal, and grain sorghum oil meal or cake, 12% moisture | 35.0 | 0.0286 | 0.35 | 2.86 | |

1/ Starch calculated at 89.5% recovery.2/ Assumes complete conversion of starch to dextrose.

SUGAR, BEET AND CANE

Table 42.--Factors relating to raw sugar content of specified sugar products

| Product | Unit | Sugar, raw value, from specified units of product <u>1/</u> | |
|---|-------------|--|------------|
| | | Pounds | Short tons |
| Sugar, granulated and confectioners..... | Pound | 1.07 | 0.000535 |
| | 100-lb. bag | 107.00 | .0535 |
| | Long ton | 2,396.80 | 1.1984 |
| Lump sugar..... | Pound | 1.07 | .000535 |
| Brown sugar..... | Pound | .963 | .000482 |
| Powdered sugar <u>2/</u> | Pound | 1.038 | .000519 |
| Invert sugar..... | Pound | .856 | .000428 |
| Invert sirup: | | | |
| Medium invert..... | Pound | .79 | .000395 |
| High invert..... | Pound | .74 | .000370 |
| Sucrose sirup..... | Pound | .69 | .000345 |

1/ Raw value of any quantity of sugars is equivalent to raw sugar testing 96° by the polariscope as defined in the Sugar Act of 1948, as amended.2/ Powdered sugar on the average contains 3 percent corn starch.

SUGAR, BEET AND CANE

Many products contain not only beet or cane sugar but also other sweeteners, such as corn sirup, dextrose (corn sugar), honey, or molasses. The conversion factors herein refer to typical beet or cane sugar content. In view of substitutability, products may contain a smaller or larger proportion of beet or cane sugar than those indicated. Other sweeteners are particularly important in the manufacture of candy. Beet and cane sugar represent only two-thirds of all sweeteners used by the confectionery industry in recent years. For further reference see Competitive Relationships Between Sugar and Corn Sweeteners, by Phillip E. Jones and F. G. Thomason, U.S. Department of Agriculture, June 1951. The relationships shown in that study are still applicable.

Table 43.--Factors relating to beet and cane sugar content of specified products

| Product | Unit | Factors for obtaining equivalent-- | | |
|--|-------|------------------------------------|--------------------------|----|
| | | Pounds | Short tons | |
| | | refined | raw value | |
| | | from units of product | from units of product | 1/ |
| Confections: 2/ | | | | |
| Candy: | | | | |
| Uncoated candies: | | | | |
| Caramels..... | Pound | .30 | 0.000160 | |
| Creams, candy corn, crystallized creams, etc..... | Pound | .70 | .000375 | |
| Grained mint types, so-called pure sugar..... | Pound | .95 | .000508 | |
| Fudges..... | Pound | .55 | .000294 | |
| Hard candies such as fruit drops, Christmas candies, etc..... | Pound | .60 | .000321 | |
| Jellies, soft, sugar sanded..... | Pound | .45 | .000241 | |
| Jellies, Jube jel..... | Pound | .35 | .000187 | |
| Lozenges, sugar wafers and pressed tablets..... | Pound | .90 | .000482 | |
| Marshmallows..... | Pound | .50 | .000268 | |
| Marshmallows, grain, circus peanuts, etc..... | Pound | .70 | .000375 | |
| Nougats..... | Pound | .40 | .000214 | |
| Taffy, English type..... | Pound | .30 | .000160 | |
| Taffy, wrapped..... | Pound | .35 | .000187 | |
| Sugar-panned candies: | | | | |
| Jelly beans and related products.. | Pound | .60 | .000321 | |
| Panned caramels..... | Pound | .60 | .000321 | |
| Panned chocolate centers..... | Pound | .65 | .000348 | |
| Panned creams..... | Pound | .70 | .000375 | |
| Panned fudges..... | Pound | .75 | .000401 | |
| Panned hard candies such as cinnamon drops..... | Pound | .70 | .000375 | |
| Panned marshmallows..... | Pound | .80 | .000428 | |
| Panned peanut and nut meats..... | Pound | .50 | .000268 | |

See footnotes at end of table.

--Continued

SUGAR, BEET AND CANE

Table 43.--Factors relating to beet and cane sugar content
of specified products--Continued

| Product | Unit | Factors for obtaining equivalent-- | | |
|--|-------|------------------------------------|---|---------------|
| | | Pounds | : | Short tons |
| | | refined | : | raw value |
| | | from units | : | from units |
| | | of product | : | of product 1/ |
| Confections--Continued: | | | | |
| Candy--Continued: | | | | |
| <u>Chocolate coated candies:</u> | | | | |
| Brittles, nut or peanut..... | Pound | .60 | | .000321 |
| Caramels..... | Pound | .40 | | .000214 |
| Creams assorted..... | Pound | .60 | | .000321 |
| Fruits such as cordial cherries.. | Pound | .60 | | .000321 |
| Fudges..... | Pound | .52 | | .000278 |
| Jellies..... | Pound | .45 | | .000241 |
| Marshmallows..... | Pound | .55 | | .000294 |
| Nougats..... | Pound | .45 | | .000241 |
| Peanuts and nut meats..... | Pound | .40 | | .000214 |
| Bars, uncoated: | | | | |
| Nougats, taffy, caramels, jelly, etc..... | Pound | .40 | | .000214 |
| Peanut brittle..... | Pound | .30 | | .000160 |
| <u>Solid chocolate, stars, etc.:</u> | | | | |
| Bittersweet chocolate..... | Pound | .40 | | .000214 |
| Milk chocolate..... | Pound | .55 | | .000294 |
| Sweet chocolate..... | Pound | .50 | | .000268 |
| Sweetened, enriched military.... | Pound | .50 | | .000268 |
| <u>Coated bars--chocolate or confectioners coatings:</u> | | | | |
| Caramel-nougat..... | Pound | .45 | | .000241 |
| Coconut..... | Pound | .40 | | .000214 |
| Creamed..... | Pound | .65 | | .000348 |
| Fudge..... | Pound | .52 | | .000278 |
| Marshmallows..... | Pound | .52 | | .000278 |
| Nougats..... | Pound | .48 | | .000257 |
| Peanut brittle..... | Pound | .50 | | .000268 |
| Peanut or nut roll bar..... | Pound | .35 | | .000187 |
| <u>Novelty chocolate bars:</u> | | | | |
| Almond chocolate..... | Pound | .40 | | .000214 |
| Cereal chocolate..... | Pound | .40 | | .000214 |
| Peanut chocolate..... | Pound | .40 | | .000214 |
| <u>Miscellaneous candy:</u> | | | | |
| Chocolate..... | Pound | .38 | | .000203 |
| Nonchocolate..... | Pound | .52 | | .000278 |
| Unspecified..... | Pound | .45 | | .000241 |
| Chewing gum..... | Pound | .56 | | .000300 |

See footnotes at end of table.

--Continued

SUGAR, BEET AND CANE

Table 43.--Factors relating to beet and cane sugar content
of specified products--Continued

| Product | Unit | Factors for obtaining equivalent-- | | |
|---|---------------------|---------------------------------------|------------|----|
| | | Pounds | Short tons | |
| | | refined | raw value | |
| | | from units | from units | |
| | | of product | of product | 1/ |
| Chocolate, sweetened cooking | Pound | .50 | .000268 | |
| Cocoa, beverage powder (military) : | Pound | .52 | .000278 | |
| Fruit peel, candied | Pound | .80 | .000428 | |
| Popcorn, candied | Pound | .60 | .000321 | |
| Soft drinks: | | | | |
| Cola, clear fruit or other soft drink sirups | Pound | .55 | .000294 | |
| | : Gal. (10.5 lb.) | 5.80 | .003100 | |
| Cola, soft types drinks bottled ... | Pound | .10 | .000054 | |
| | : Gal. (8.65 lb.) | .866 | .000463 | |
| | : 24/7 oz. bottles | 1.14 | .000610 | |
| | : 24/12 oz. bottles | 1.95 | .001043 | |
| Fruit flavored soft drinks | Pound | .12 | .000064 | |
| | : Gal. (8.7 lb.) | 1.05 | .000562 | |
| | : 24/7 oz. bottles | 1.37 | .000733 | |
| | : 24/12 oz. bottles | 2.36 | .001263 | |
| Gingerale, bottled | Pound | .084 | .000045 | |
| | : Gal. (8.6 lb.) | .722 | .000386 | |
| | : 24/12 oz. bottles | 1.62 | .000867 | |
| Dairy products: | | | | |
| Condensed milk, sweetened | Pound | .42 | .000225 | |
| | : 48/14 oz. cans | 17.64 | .009437 | |
| Condensed skim milk, sweetened ... | Pound | .40 | .000214 | |
| Ice cream | Pound | .15 | .000080 | |
| | : Gal. (4.5 lb.) | .72 | .000385 | |
| Ice cream mix: | | | | |
| Paste | Pound | .36 | .000193 | |
| Powder | Pound | .40 | .000214 | |
| Sherbet | Pound | .28 | .000150 | |
| Water ice | Pound | .29 | .000155 | |
| | : | | | |

1/ Raw value of any quantity of sugars is equivalent to raw sugar testing 96° by the polariscope as defined in the Sugar Act of 1948, as amended.

2/ The sugar content of confections may vary as much as 10%, plus or minus, from the indicated figures.

OTHER SUGARS, SIRUPS, AND MOLASSES

Table 44.--Net weights, sugar solids content, and total solids content per unit of specified products (at 20° C.)

| Product | Unit 1/ | Net | Total sugar | Total |
|---|------------|--------------------|----------------------|-------------------|
| | | weight per unit | solids content 2/ | solids content |
| | | <u>Pounds</u> | <u>Pounds</u> | <u>Pounds</u> |
| Corn sirup, regular 42° Baume ... | Pound | 1.00 | .78 | 0.783 |
| | No. 10 can | 8.88 | 6.92 | 6.95 |
| | Gallon | 11.68 | 9.11 | 9.15 |
| Corn sugar or dextrose (hydrate)..... | Pound | 1.00 | .92 | .92 |
| Honey..... | Pound | 1.00 | .78 | .83 |
| | Gallon | 11.84 | 9.24 | 9.83 |
| Maple sirup..... | Pound | 1.00 | .64 | .66 |
| | Gallon | 11.03 | 7.06 | 7.28 |
| Maple sirup, imitation: | | | | |
| Thin type..... | Pound | 1.00 | .66 | .66 |
| | Gallon | 11.03 | 7.28 | 7.28 |
| Thick type..... | Pound | 1.00 | .73 | .73 |
| | Gallon | 11.39 | 8.31 | 8.31 |
| Maple sugar..... | Pound | 1.00 | .87 | .90 |
| Molasses, edible, first centrifugal: 3/ | | | | |
| U. S. Grade A..... | Pound | 1.00 | .635 | .79 |
| | No. 10 can | 8.91 | 5.66 | 7.04 |
| | Gallon | 11.72 | 7.44 | 9.26 |
| U. S. Grade B..... | Pound | 1.00 | .615 | .79 |
| | No. 10 can | 8.91 | 5.48 | 7.04 |
| | Gallon | 11.72 | 7.21 | 9.26 |
| U. S. Grade C..... | Pound | 1.00 | .58 | .79 |
| | No. 10 can | 8.91 | 5.17 | 7.04 |
| | Gallon | 11.72 | 5.80 | 9.26 |
| Molasses, inedible black- strap 4/ 5/..... | Pound | 1.00 | .50 | .795 |
| | Gallon | 11.74 | 5.87 | 9.33 |
| | Tank car | 93,920 | 46,960 | 74,666 |
| Refiner's sirup: 6/ | | | | |
| U. S. Grade A..... | Pound | 1.00 | .6624 | .72 |
| | Gallon | 11.34 | 7.51 | 8.16 |
| U. S. Grade B..... | Pound | 1.00 | .6192 | .72 |
| | Gallon | 11.34 | 7.02 | 8.16 |

OTHER SUGARS, SIRUPS, AND MOLASSES

Table 44.--Net weights, sugar solids content, and total solids content per unit of specified products (at 20° C.)--Continued

| Product | | Net | Total sugar | Total |
|--------------------------------|---------|--------------------|----------------------|-------------------|
| | Unit 1/ | weight per unit | solids content 2/ | solids content |
| | | Pounds | Pounds | Pounds |
| Refiner's sirup: 6/--Continued | | | | |
| U. S. Grade C..... | Pound | 1.00 | 0.5928 | 0.76 |
| Gallon | | 11.55 | 6.85 | 8.78 |
| U. S. Grade D..... | Pound | 1.00 | .5320 | .76 |
| Gallon | | 11.55 | 6.14 | 8.78 |
| Sugar cane sirup: | | | | |
| U. S. Grade B, unsulfured..... | Pound | 1.00 | .68 | .74 |
| No. 10 can | | 8.70 | 5.92 | 6.44 |
| Gallon | | 11.45 | 7.79 | 8.47 |
| U. S. Grade B, sulfured..... | Pound | 1.00 | .65 | .74 |
| No. 10 can | | 8.70 | 5.66 | 6.44 |
| Gallon | | 11.45 | 7.44 | 8.47 |
| Sorgo sirup..... | Pound | 1.00 | .68 | .76 |
| No. 10 can | | 8.78 | 5.97 | 6.67 |
| Gallon | | 11.55 | 7.85 | 8.78 |

1/ The No. 10 can is estimated to contain 0.76 gallon, based on internal volume of 189.7 cu. in. and 93% fill when cold.

2/ Total sugar solids refers to all sugars, not only sucrose. The sugar content of all products except corn sirup and honey consists of one or more of the following sugars: dextrose, levulose (monosaccharides) and sucrose (a disaccharide). Corn sirup, regular, 42° Baume contains 34% of mono, di, and tri saccharides, which types of sugars are generally associated with sweetness. These types include dextrose and maltose (a disaccharide). In addition corn sirup contains 44% higher sugars (polymers of dextrose) which have little or no sweetness. The sugar content of honey averages 38% levulose, 31% dextrose, 7% maltose, 1.5% sucrose and 1.5% higher sugars.

3/ U.S. Grade A is based on a minimum total sugar content of 63.5% and minimum density of 79° Brix.

U.S. Grade B is based on a minimum total sugar content of 61.5% and minimum density of 79° Brix.

U.S. Grade C is based on a minimum total sugar content of 58.0% and minimum density of 79° Brix.

4/ Based on average total sugar content of 50% and minimum density of 79.5° Brix.

5/ 1 gallon of ethanol made from 2.40 gallons of inedible blackstrap molasses.

6/ U.S. Grade A is based on a Brix solids content of not less than 72% and a ratio of total sugars to Brix solids of not less than 92%.

U.S. Grade B is based on a Brix solids content of not less than 72% and a ratio of total sugars to Brix solids of not less than 86%.

U.S. Grade C is based on a Brix solids content of not less than 76% and a ratio of total sugars to Brix solids of not less than 78%.

U.S. Grade D is based on a Brix solids content of not less than 76% and a ratio of total sugars to Brix solids of not less than 70%.

COCOA AND COCOA PRODUCTS

In processing, cocoa beans are roasted and hulled with a resultant loss in weight of 20%. The 80% remaining is chocolate liquor, sometimes called ground or bitter chocolate. About 53% of the liquor is composed of cocoa butter or fat and 47% is composed of a nonfat powder residual. Since it is impossible to completely separate the butter from the nonfat powder residual, the manufacturer will leave a minimum of fat in the powder--usually about 12%, but if breakfast cocoa is desired, about 22% is left.

Table 45.--Factors relating to cocoa bean content of specified products

| Product | Unit | Equivalent pounds of cocoa beans per unit of product | Remarks |
|---|-------------|--|---|
| Chocolate, unsweetened, commercial, or pure chocolate liquor | Pound | 1.25 | |
| Chocolate, sweetened, commercial | Pound | .73 | Factor to be used for most types, which usually contain 30% chocolate liquor; and 14% cocoa butter. 1/ |
| Cocoa powder, unsweetened | Pound | .1.18 | 12% cocoa fat. 2/ |
| Cocoa, breakfast | Pound | 1.04 | 22% cocoa fat. 2/ |
| Cocoa beverage powder (military) | Pound | .39 | 18% cocoa (18% fat). Cocoa beverage component for mili- tary rations; also may be used for instant, sweetened or soluble cocoa. |
| Cocoa beverage powder, malted type, commercial | Pound | .31 | |
| Cocoa butter | Pound | 1.33 | Beans pressed to 12% residual fat. 2/ |
| Chocolate syrup for topping ... | Pound | .24 | Chocolate liquor 13.5%; cocoa butter 2.5% |
| | Gallon | 2.64 | |
| Chocolate syrup for beverages .. | Pound | .26 | Cocoa 11%. |
| | Gallon | 2.67 | |
| | (10.27 lb.) | | |
| Chocolate flavored milk, chocolate flavored drink | Pound | .02 | Cocoa 1.0%. |
| | Gallon | .20 | |
| | (9 lb.) | | |
| Chocolate ice cream | Pound | .06 | Cocoa 2.5%. |
| | Gallon | .28 | |
| | (4.5 lb.) | | |
| Candy: | | | |
| Chocolate bars or discs, sweet, solid, enriched, high melt (military) | Pound | .21 | Chocolate liquor 17%. |

Continued--

COCOA AND COCOA PRODUCTS

Table 45.--Factors relating to cocoa bean content
of specified products--Continued

| Product | Unit | Equivalent pounds of | | Remarks |
|---|-------|----------------------|-----------------|--|
| | | cocoa beans per | unit of product | |
| Candy - Continued: | | | | |
| Chocolate fudge bars (military) | Pound | .12 | | Chocolate liquor 6%; cocoa 1.8%. |
| Chocolate-coated bars, commercial | Pound | .20 | | |
| Chocolate drops, candy-coated or pan-coated chocolates | Pound | .50 | | Chocolate liquor 40%. |
| Chocolate bars or chocolate candy, unspecified | Pound | .67 | | An average figure for use when no detailed specifica- tions are given. |
| Candy, miscellaneous, or unspecified | Pound | .28 | | |
| | | | | |
| | | | | |
| Chocolate pudding, or chocolate dessert powder | Pound | .31 | | Breakfast cocoa 15%. |
| Chocolate cake mix | Pound | .14 | | Breakfast cocoa 7%. |
| Cookies, oatmeal, chocolate chip (military) | Pound | .13 | | Chocolate liquor 5.6%; cocoa butter 2.2%. |
| | | | | |

1/ If the proportions of chocolate liquor and cocoa butter are known and are different from those shown for this item, calculate factor with following formula:

$$\text{Pounds of beans per unit of product} = \frac{1.25(x + 2.15y)}{100}$$

x = percent of liquor

y = percent of butter

2/ In the case of cocoa butter and cocoa powder, approximately twice the amount of beans implied by these conversions are needed to produce a given amount of product. The factors have been adjusted to exclude the proportionate volume resulting in production of residual products.

FRUITS AND VEGETABLES, CONTAINERS

Table 46.--Cans commonly used in canning fruits, vegetables, juices: Container dimensions, capacities, and conversion factors

| Industry designation: | Dimensions | Total | No. 303 equiv- alent | No. 2 equiv- alent | No. 2½ equiv- alent |
|----------------------------------|------------|-----------------------------|----------------------------|--------------------------|---------------------------|
| | | capacity avoir. ozs. | | | |
| | | 1/ of water at 68° F. | | | |
| 6Z | 202x308 | 6.08 | .360 | .295 | .204 |
| 8Z Short | 211x300 | 7.93 | .470 | .386 | .266 |
| 8Z Tall | 211x304 | 8.68 | .514 | .422 | .291 |
| No. 1 Flat | 307x203 | 8.89 | .527 | .433 | .298 |
| No. 1 Picnic | 211x400 | 10.94 | .648 | .532 | .367 |
| No. 211 Cylinder | 211x414 | 13.56 | .803 | .660 | .455 |
| No. 2 Vac. (12Z Vac) | 307x306 | 14.71 | .871 | .716 | .494 |
| No. 300 | 300x407 | 15.22 | .902 | .741 | .511 |
| No. 1 Tall | 301x411 | 16.70 | .989 | .813 | .561 |
| No. 303 | 303x406 | 16.88 | 1.000 | .821 | .567 |
| No. 300 Cylinder | 300x509 | 19.40 | 1.149 | .945 | .651 |
| No. 2 | 307x409 | 20.55 | 1.217 | 1.000 | .689 |
| No. 303 Cylinder | 303x509 | 21.86 | 1.295 | 1.060 | .734 |
| No. 3 Vacuum | 404x307 | 23.9 | 1.416 | 1.162 | .802 |
| Jumbo | 307x510 | 25.8 | 1.528 | 1.254 | .866 |
| No. 2 Cylinder | 307x512 | 26.4 | 1.564 | 1.284 | .886 |
| No. 2½ | 401x411 | 29.79 | 1.765 | 1.450 | 1.000 |
| 29Z | 307x700 | 32.5 | 1.925 | 1.580 | 1.091 |
| 32Z (Quart) | 307x710 | 35.5 | 2.103 | 1.729 | 1.192 |
| No. 3 Cylinder (46 oz.) | 404x700 | 51.7 | 3.063 | 2.515 | 1.735 |
| No. 5 Squat | 603x408 | 68.1 | 4.034 | 3.314 | 2.286 |
| No. 10 | 603x700 | 109.43 | 6.483 | 5.325 | 3.673 |

1/ The first figures in this column represent the diameter of the container and the second figure the height. The first digit in each number represents inches and the second two digits sixteenths of an inch, i.e., 307 is three and seven-sixteenths inches.

Source - National Canners Association

FRUITS AND VEGETABLES, CONTAINERS

Table 47.--Case conversion factors for canned fruits and vegetables

| Container designation | No. containers per case | Factors to multiply by to convert to: | | |
|---------------------------|-------------------------------|--|--------|---------|
| | | 24/303's | 24/2's | 24/2½'s |
| 6Z..... | 48 | 0.72 | 0.59 | 0.41 |
| 8Z Short..... | 72 | 1.41 | 1.16 | .80 |
| 8Z Tall..... | 48 | 1.03 | .84 | .58 |
| No. 1 Flat..... | 48 | 1.05 | .87 | .60 |
| No. 1 Picnic..... | 48 | 1.30 | 1.06 | .73 |
| | | | | |
| No. 211 Cylinder..... | 24 | .80 | .66 | .46 |
| No. 2 Vac. (12Z Vac.).... | 24 | .87 | .72 | .49 |
| No. 300..... | 24 | .90 | .74 | .51 |
| No. 1 Tall..... | 24 | .99 | .81 | .56 |
| No. 303..... | 24 | 1.00 | .82 | .57 |
| | | | | |
| No. 300 Cylinder..... | 24 | 1.15 | .94 | .65 |
| No. 2..... | 24 | 1.22 | 1.00 | .69 |
| No. 3 Vacuum..... | 24 | 1.42 | 1.16 | .80 |
| No. 2½..... | 24 | 1.77 | 1.45 | 1.00 |
| 29Z..... | 12 | .96 | .79 | .55 |
| | | | | |
| 32Z (Quart)..... | 12 | 1.05 | .86 | .60 |
| No. 3 Cylinder..... | 12 | 1.53 | 1.26 | .87 |
| No. 5 Squat..... | 6 | 1.01 | .83 | .57 |
| No. 10..... | 6 | 1.62 | 1.33 | .92 |
| | | | | |

Source: National Canners Association

FRUITS AND VEGETABLES, CONTAINERS

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables

| Commodity | Shipping container | Approximate net weight $\frac{1}{4}$ |
|----------------------------|---|--------------------------------------|
| Fresh fruits | | Pounds |
| Apples | Bu. basket | 40 - 50 |
| | Fiberboard box, tray pack | 37 - 48 |
| | Fiberboard box, cell pack | 37 - 44 |
| | Fiberboard box, bulk pack | 38 - 50 |
| | Film bag 3, 4, 5, 10 lb. (packed 4 to 15 bags to the master container) | 36 - 48 |
| Apricots | Lug, Brentwood | 24 - 25 |
| | Lug, L.A. | 27 - 30 |
| | Lug | 12 |
| | Lug | 14 |
| | 4-basket crate | 26 |
| Avocados (Calif.) | Lug | 12 - 15 |
| (Fla.) | 1-layer flat or $\frac{1}{4}$ bu. wood or fiberboard box | 13 - 14 |
| (Fla.) | 4/5 bu. fiberboard box or carton | 36 - 40 |
| Bananas | Fiberboard folding box | 25 - 50, mostly 40 |
| All berries (Calif.) | 12 l-pt. tray or carton | 11 - 12 |
| All berries (other) | 24 qt. crate | 36 |
| | 24 pt. crate | 18 |
| | 12 pt. crate | 9 |
| | 16 qt. crate | 24 |
| Cherries | Lug, Calex | 18 - 20 |
| | Lug, Campbell | 15 - 16 |
| | Lug, wood | 12 - 14 |
| | Lug or carton | 20 |
| Cranberries | Box or fiberboard carton, $\frac{1}{4}$ barrel | 25 |
| | 1-lb. film bag or carton (packed 24 to the master container) | 24 |
| Figs (Calif.) | Flat, 2 layer | 12 - 15 |
| | 9-basket crate | 12 - 15 |
| Grapefruit (Fla.) | 1 3/5 bu. wirebound box | 85 |
| | 4/5 bu. wirebound or fiberboard box | 42- $\frac{1}{2}$ |
| | Film or mesh bags | 4 - 5 - 8 |
| | Mesh bags | 20 |

Continued--

FRUITS AND VEGETABLES, CONTAINERS

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables,
Continued--

| Commodity | Shipping container | Approximate net weight <u>1/</u> |
|--|---|----------------------------------|
| <u>Pounds</u> | | |
| Grapefruit (Texas) | 1-2/5 bu. wirebound box | 80 |
| | 7/10 wirebound or fiberboard box | 40 |
| | Bags | 5 - 8 |
| | Mesh bags | 20 |
| Grapefruit (Calif. Desert Valleys and Arizona) | 7/10 bu. fiberboard box, carton | 32 |
| Grapefruit (Calif. "other" areas) | 7/10 bu. fiberboard box, carton | 33- $\frac{1}{2}$ |
| Grapes, table (Calif.) | Lug | 27 - 28 |
| | Lug | 24 |
| | Flat | 17 - 20 |
| | Chest, sawdust pack | 20 - 22 |
| | Chest, sawdust pack | 32 - 34 |
| Grapes (Eastern) | 8 2-qt. crates | 24 - 25 |
| | 12-qt. basket | 18 - 20 |
| Grapes, juice (Calif.) | Lug | 26 - 28 |
| | Lug | 36 - 42 |
| Lemons (Calif. & Ariz.) | 7/10 bu. fiberboard carton | 38 |
| Limes (Calif. & Fla.) | Fiberboard box, carton - 4/5 bu. | 40 |
| | Fiberboard box, carton - 2/5 bu. | 20 |
| | Fiberboard box, carton - 1/5 bu. | 10 |
| | Fiberboard master container 12 1-lb. pkgs. | 12 |
| | 36 1-lb. pkgs. or 24 1 $\frac{1}{2}$ -lb. | 36 |
| Mangoes (Fla.) | 1 layer flat | 13 |
| | Box or carton | 40 |
| Nectarines (Calif.) | Flat | 10 |
| | Standard peach box | 20 - 24 |
| | Lug, Sanger | 22 - 24 |
| | Lug, L.A. | 30 |
| | 4-basket crate | 30 - 32 |
| Oranges (Fla.) | 1-3/5 bu. wirebound box | 90 |
| | 4/5 bu. wirebound or fiberboard box | 45 |
| | Film or mesh bags | 4 - 5 - 8 |
| | Mesh bags | 20 |
| Oranges (Texas) | 1-2/5 bu. wirebound box | 85 |
| | 7/10 bu. wirebound or fiberboard box | 42- $\frac{1}{2}$ |
| | Bags | 5 - 8 |
| | Mesh bags | 20 |

Continued--

FRUITS AND VEGETABLES, CONTAINERS

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables,
Continued--

| Commodity | Shipping container | Approximate net weight <u>1/</u> |
|----------------------------------|--|----------------------------------|
| Oranges (Calif. & Ariz.) | 7/10 bu. fiberboard carton | 37- $\frac{1}{2}$ |
| | Bags | 2 - 8 |
| Peaches (West) | Lug, L.A., wooden | 22 - 28 |
| | Western peach box | 16 - 20 |
| | Lug, Sanger | 20 |
| | Flat - 1 layer | 10 |
| | Wood or fiberboard crate or carton | 18 - 22 |
| | 4-basket crate | 27 |
| Peaches (all other States) | Bu. basket | 46 - 52 |
| | 1-1/9 bu. crate | 50 - 55 |
| | 3/4 bu. basket, carton or crate | 35 - 42 |
| | $\frac{1}{2}$ bu. basket | 23 - 28 |
| Pears (West) | Standard wood box or carton | 40 - 54 |
| | Lug, L.A. or 2-layer carton | 22 - 28 |
| | $\frac{1}{2}$ standard box | 30 |
| | 3/4 bu. basket | 38 - 41 |
| Pears, prickly (Calif.) | Lug | 20 |
| Persimmons (Calif.) | Lug | 20 |
| Plums (Calif. & Idaho) | Fiberboard box carton | 25 - 30 |
| Plums (Calif.) | Standard peach box | 20 - 24 |
| | Lug, Sanger | 24 - 28 |
| | Lug, L.A. | 32 |
| | 4-basket crate | 28 - 34 |
| Prunes (Northwest) | $\frac{1}{2}$ -bu. basket, carton or lug | 28 - 30 |
| | 4-basket crate | 28 - 30 |
| | Fiberboard carton | 20 |
| | Wooden box | 15 |
| | Wooden box | 12 |
| Pomegranates | Lug, L.A. | 28 |
| Tangerines (Fla.) | 4/5 bu. wirebound or fiberboard box | 47- $\frac{1}{2}$ |
| Tangerines (Calif.) | Carton | 25 |
| Fresh vegetables | | |
| Anise (Calif.) | W.G.A. crate | 75 |
| Anise (Texas) | Wirebound crate | 35 - 40 |
| Artichokes (Calif.) | $\frac{1}{2}$ box | 20 - 26 |
| | Fiberboard box, carton | 22 |

Continued--

FRUITS AND VEGETABLES, CONTAINERS

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables,
Continued--

| Commodity | Shipping container | Approximate net weight 1/ |
|----------------------------|---|---------------------------|
| | | Pounds |
| Asparagus, all | Pyramid crate | 26 - 32 |
| | Pony crate | 12 |
| Asparagus (Calif.) | Fiberboard box, carton containing 1-½ lb. consumer pkgs. | 31 |
| | 3-qt. basket - loose | 10 |
| Beans, lima, all | Bu. hamper or basket | 28 - 32 |
| Beans, snap, all | Bu. hamper or basket | 28 - 32 |
| Beets, bunched | Wirebound crate | 45 |
| | ½ W.G.A. crate | 40 - 45 |
| | Carton containing 18 bunches | 15 |
| Beets, topped, all | Open mesh sack | 50 |
| Broccoli | Wirebound crate | 25 |
| | Pony crate | 40 - 42 |
| | ½ crate, wirebound | 20 - 22 |
| | Crate, 14 film-wrapped bunches | 20 - 23 |
| Brussels sprouts | Tray, 12-pt. cups | 12 - 14 |
| | Wirebound crate, 24 1-pt. cups | 22 - 26 |
| | Fiberboard box, carton | 25 |
| | Drums | 25 |
| Cabbage, all | Wirebound crate | 50 |
| | W.G.A. crate | 70 - 100 |
| | Mesh bag | 50 |
| | Paper bag | 50 - 60 |
| | Carton, fiberboard | 44 - 70 |
| Carrots, topped, all | Open mesh bags | 50 |
| | Wirebound crate | 50 |
| | Wirebound crate | 80 |
| | Burlap sack | 70 - 85 |
| | 4 doz. 1-lb. film bags packed in mesh bag or carton | 50 |
| | 2 doz. 2-lb. film bags packed in mesh bag or carton | 50 |
| | Bushel baskets | 50 |
| Carrots, bunched | 2/3 crate | 45 - 52 |
| | S & W crate, 6 doz. | 87 |

Continued--

FRUITS AND VEGETABLES, CONTAINERS

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables,
Continued--

| Commodity | Shipping container | Approximate net weight 1/ |
|----------------------------------|---|---------------------------|
| <u>Pounds</u> | | |
| Cauliflower, all | Fiberboard box, 1 layer, : wrapper leaves removed, film : wrapped | 16 - 23 |
| | Fiberboard box, 2 layers : wrapper leaves removed, film : wrapped | 23 - 35 |
| | Crate, lettuce | 55 - 62 |
| | L.A. crate | 50 - 53 |
| | W.G.A. crate | 50 - 60 |
| Celery, all | | |
| | 16" nailed or wirebound crate | 55 - 70 |
| | $\frac{1}{2}$ size carton | 30 - 33 |
| | 2/3 carrot crate | 72 - 75 |
| | Pony crate | 40 |
| | Crate, lettuce | 72 - 90 |
| | Fiberboard box, 16" packed with : 2 doz. film bags | 50 |
| | Fiberboard box, 16" packed with : 1 doz. film bags | 25 |
| Chinese cabbage | | |
| | 1.45 bu. wirebound box | 50 - 55 |
| | 1-1/8 or 1-1/9 bu. crate or carton | 40 |
| Corn, all | | |
| | Wirebound crate | 40 - 60 |
| | Mesh or multi-wall bag | 45 - 50 |
| Corn (Texas) | Mesh bag - $\frac{1}{2}$ bu. | 22 - 30 |
| Cucumbers, all | | |
| | Bu. basket, carton, hamper or crate | 47 - 55 |
| | Fiberboard carton | 20 - 22 |
| | 1-1/9 bu. crate | 55 |
| | .57 bu. wirebound crate | 27 |
| | 1/3 bu. fiberboard carton | 19 |
| | 1/4 bu. fiberboard carton | 14 |
| | Lug, L.A. | 28 - 32 |
| Eggplant, all | | |
| | Bu. basket or hamper | 30 - 34 |
| | 1-1/9 bu. crate | 35 |
| Escarole, endive, and chicory .. | | |
| | 16" wirebound or nailed crate | 36 |
| | Bu. basket | 25 |
| | 1-1/9 bu. wirebound crate | 25 - 28 |
| Garlic | | |
| | Open mesh sack | 25 |
| | Open mesh sack | 50 |
| | Fiberboard box, carton | 30 |

Continued--

FRUITS AND VEGETABLES, CONTAINERS

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables,
Continued--

| Commodity | Shipping container | Approximate net weight <u>1/</u> |
|--|--|----------------------------------|
| <u>Pounds</u> | | |
| Garlic - Continued | Fiberboard box | 25 |
| | Nailed crate | 50 |
| | L.A. lug | 28 - 30 |
| Greens: Collards, mustard, turnip, and spinach | Bu. basket, hamper, or crate | 18 - 25 |
| Lettuce & romaine, all | Fiberboard box, carton | 38 - 55 |
| | Wirebound crate | 40 |
| | 1-1/9 bu. crate | 26 |
| Lettuce, hothouse | Basket | 5 |
| | Basket | 10 |
| Melons, cantaloups | Jumbo crate | 80 - 89 |
| | Standard crate | 70 - 85 |
| | Fiberboard carton, Eastern flat | 15 - 18 |
| | $\frac{1}{2}$ size carton | 31- $\frac{1}{2}$ |
| Melons, honeydew | Honeydew flat or crate | 35 - 47 |
| | Jumbo honeydew crate | 52 |
| | Standard honeydew crate | 48 |
| | Carton | 31- $\frac{1}{2}$ |
| Onions, dry, all | Open mesh sack | 50 |
| | do. | 25 |
| | do. | 10 |
| | do. | 5 |
| | Fiberboard carton | 48 - 50 |
| | Film bags, packed in master containers | 1- $\frac{1}{2}$, 2, 3, 5, 10 |
| Onions, green | Wirebound crate | 15 - 20 |
| | Wirebound crate | 38 |
| | 16" fiberboard carton | 25 - 30 |
| | Carton, 4 doz. bunches | 15 - 18 |
| | Open lug | 10 - 16 |
| | Crate | 60 - 65 |
| Okra | Basket, $\frac{1}{2}$ bushel | 15 |
| | Bushel basket or hamper | 30 |
| Parsley | 16" crate | 19 |
| | Wirebound crate | 26 |
| | Nailed crate | 18 - 20 |
| | $\frac{1}{2}$ L.A. crate | 24 |

Continued--

FRUITS AND VEGETABLES, CONTAINERS

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables,
Continued--

| Commodity | Shipping container | Approximate net weight <u>1</u> / |
|--------------------------------|--|-----------------------------------|
| <u>Pounds</u> | | |
| Peas, green, unshelled | Bushel hamper or tub | 28 - 30 |
| Peppers, green, all | Bu. basket, hamper or crate | 28 - 30 |
| | 1-1/9 bu. crate | 28 - 33 |
| | Fiberboard carton | 30 - 34 |
| Potatoes, all | Burlap sack | 50 & 100 |
| | Fiberboard carton | 50 - 55 |
| | Paper bag, with or without mesh window | 5, 10, 15, 20, 25, 50 |
| | 2 and 3-lb. film-wrapped cardboard boats packed in master containers | 50 - 55 |
| | Mesh or film bag | 3, 5, 8, 10, 15, 20, 25 |
| Radishes, topped | 12-qt. basket, 30 6-oz. film bags | 11- $\frac{1}{4}$ |
| | Cartons, 30 6-oz. film bags | 11- $\frac{1}{4}$ |
| | 25-lb. film bags | 25 |
| Radishes, bunched | Crate, 5 doz. bunches | 30 - 40 |
| | Carton, wax-treated, 4-5 doz. bunches | 30 - 40 |
| | W.G.A. crate, 8-10 doz. bunches | 80 - 90 |
| | W.G.A. crate, packed loose, unlidded, 6 doz. bunches | 45 - 55 |
| Rhubarb, field grown | Box | 20 |
| Rhubarb, hothouse | Box | 15 |
| | Case, 10 5-lb. carton | 50 |
| Squash, summer | Bu. basket, hamper or crate | 40 - 45 |
| | $\frac{1}{2}$ bu. wirebound crate | 21 |
| | Lug, L.A. | 24 - 27 |
| Squash, winter | Bu. basket, hamper or crate | 50 |
| Sweetpotatoes <u>2</u> / | Bu. basket, crate or hamper | 50 |
| | Fiberboard box carton | 36 - 46 |
| | Fiberboard box carton, uncurred | 40 - 50 |
| | $\frac{1}{2}$ bu. carton, hamper, or basket | 22 - 25 |
| Tomatoes | Lug, L.A. | 30 - 34 |
| | 8-qt. climax basket | 9 - 11 |
| | 12-qt. climax basket | 18 - 20 |
| | 16-qt. climax basket | 27 |
| | Wirebound crate | 58 - 62 |

Continued--

FRUITS AND VEGETABLES, CONTAINERS

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables,
Continued--

| Commodity | Shipping container | Approximate net weight <u>1/</u> |
|----------------------------|------------------------------------|----------------------------------|
| Tomatoes - Continued | $\frac{1}{2}$ bu. basket or hamper | 30 |
| : | 5/8 bu. hamper | 33 - 35 |
| : | Wirebound crate | 40 |
| : | Wooden flat or nailed box | 15 - 25 |
| : | Fiberboard carton | 8, 18, 20, |
| : | | 30, 40, 60 |
| Turnips, bunched | Wirebound crate | 42 |
| : | $\frac{1}{2}$ W.G.A. crate | 35 - 40 |
| : | W.G.A. crate | 70 - 80 |
| Turnips, topped | Open mesh sack | 50 |
| : | Film sack | 25 |

1/ Actual weights larger and smaller than the range shown may be found. It is suggested that the mid-point of the range be used where a single value is desired.

2/ The usual weight of sweetpotatoes when harvested averages 55 pounds. Weight is lost in curing or drying.

FRUITS AND VEGETABLES, CONTAINERS

Table 49.--Canned fruits and juices: Net weight of standard cases in pounds per case 1/

| Commodity | Grade | 24/1's tall | 24/303 | 24/2's | 24/2½'s | 6/10's |
|-------------------------------|----------|----------------|--------|--------|---------|--------|
| | | Pounds | Pounds | Pounds | Pounds | Pounds |
| Canned fruits: | | | | | | |
| Citrus: <u>2/</u> | | | | | | |
| Citrus salad | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| Grapefruit sections | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| Noncitrus: | | | | | | |
| Apples | Standard | 21.8 | 22.1 | 26.9 | 39.0 | 35.9 |
| | Choice | --- | --- | --- | --- | 35.6 |
| Apple butter | Standard | 27.7 | 28.0 | 34.2 | 49.5 | 45.5 |
| Apple sauce | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| Apricots | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| Berries (all) | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| Cherries: | | | | | | |
| Unpitted | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| Pitted | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| Cranberry sauce | Standard | 26.9 | 27.2 | 33.1 | 48.0 | 44.2 |
| Figs | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| Fruit cocktail | Fancy | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| | Choice | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| Fruit for salad | Fancy | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| | Choice | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| Grapes | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| Jams and preserves | Standard | 31.1 | 31.4 | 38.3 | 55.5 | 51.0 |
| Jelly | Standard | 31.1 | 31.4 | 38.3 | 55.5 | 51.0 |
| Olives, drained weight .. | Standard | 15.1 | 15.3 | 18.6 | 27.0 | 24.8 |
| Peaches | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| Pears | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| Pineapple, Hawaiian | Standard | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| | Choice | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| Plums | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |
| Prunes, fresh <u>3/</u> | Standard | 24.4 | 24.6 | 30.0 | 43.5 | 40.0 |
| | Choice | 25.2 | 25.5 | 31.0 | 45.0 | 41.4 |

Continued--

FRUITS AND VEGETABLES, CONTAINERS

Table 49.--Net weight of standard cases in pounds per case 1/ - Continued

| Commodity | Grade | 24/1's tall | 12/3 Cyl. | 24/2's | 24/2½'s | Gallon |
|----------------------|-------|----------------|--------------|--------|---------|--------|
| Canned juices: | | | | Pounds | Pounds | Pounds |
| Citrus: | | | | | | |
| Blended citrus | --- | --- | 37.3 | 29.6 | 42.9 | 8.7 |
| Grapefruit | --- | --- | 37.3 | 29.6 | 42.9 | 8.7 |
| Lemon and lime | --- | --- | 36.8 | 29.2 | 42.3 | 8.6 |
| Orange | --- | --- | 37.3 | 29.6 | 42.9 | 8.7 |
| Tangerine | --- | --- | 37.3 | 29.6 | 42.9 | 8.7 |
| Nonecitrus: | | | | | | |
| Apple | --- | --- | 37.7 | 29.9 | 43.4 | 8.8 |
| Grape | --- | --- | 38.6 | 30.6 | 44.4 | 9.0 |
| Nectars | --- | --- | 37.7 | 29.9 | 43.4 | 8.8 |
| Pineapple | --- | --- | 37.7 | 29.9 | 43.4 | 8.8 |
| Prune | --- | --- | 38.6 | 30.6 | 44.4 | 9.0 |

1/ Weights are derived from Net Contents Statements for Canned Food Labels - 1949, National Canners Association, as follows: for fruits, from the weight of the No. 2½ can; for juices, from fluid content of the No. 2 can and the gallon weight, at the ratio of 3.4 gallons per case of 24/2's.

2/ Additional weights for citrus fruits: case of 12/3 cylinder 37.8 pounds; case of 24/300's of 22.2 pounds.

3/ For factor on canned dried prunes, see Table 53.

FRUITS AND VEGETABLES, JUICES AND CONCENTRATES

Table 50.--Fruit juices and concentrates: Factors relating to farm
and processed weights 1/

| Item and specification | Approximate brix | Equivalent farm weight per gallon | Gallons per unit of farm weight | Net weight per gallon | |
|--|---------------------|---|---------------------------------------|--------------------------|--------|
| | Degrees | Pounds | Box 2/ | Ton | Pounds |
| Apple: | | | | | |
| Single strength | 13 | 12 | --- | 170 | 8.7 |
| Frozen 3 to 1 concentrate | 45 | 47 | --- | 43 | 10.0 |
| Citrus fruits: 3/ | | | | | |
| Orange | | | | | |
| Single strength juice .. | 12 | 16 | 5.7 | 126 | 8.7 |
| Frozen concentrate | 42 | 60 | 1.5 | 34 | 9.9 |
| Grapefruit | | | | | |
| Single strength juice .. | 10 | 18 | 4.6 | 108 | 8.7 |
| Frozen concentrate | 40 | 76 | 1.1 | 26 | 9.8 |
| Lemon | | | | | |
| Single strength juice .. | 4/ | 26 | 2.9 | 76 | --- |
| Non-frozen concentrate .. | 4/ | 148 | 0.5 | 13.5 | --- |
| Concentrate for lemonade: | 4/ | 18 | 4.2 | 110 | --- |
| Grape: | | | | | |
| Single strength | 16 | 11 | --- | 175 | 8.9 |
| Frozen concentrate | 50 | 40 | --- | 50 | 10.3 |
| Pineapple: | | | | | |
| Single strength | 14 | 15 | --- | 133 | 8.8 |
| 4 to 1 concentrate | 61 | 75 | --- | 27 | 10.8 |
| 3 to 1 concentrate | 50 | 60 | --- | 33 | 10.3 |
| Prune (from fresh prunes): | | | | | |
| Single strength | 31 | 13 | --- | 155 | 9.4 |
| One & one-half to 1 con- centrate | 73 | 32 | --- | 62 | 10.9 |

1/ For additional information on concentration of fruit juices, see Calculations of Volume and Weight Reduction in the Concentration of Fruit Juices, Agricultural Research Service, U.S. Department of Agriculture, ARS 74-7, June 1956.

2/ Oranges, 90 pounds; grapefruit, 85 pounds; lemons, 76 pounds.

3/ Orange and grapefruit products based on Florida yields; lemons on California.

4/ Lemon product yields are based on a standard ton containing 36.5 pounds of anhydrous citric acid.

FRUITS AND VEGETABLES, CANNED

Table 51.--Factors relating to farm and processed weights of canned fruits

| Commodity | Pounds farm weight | | Factors for obtaining equivalent-- | | Cases 24/2½'s from pounds canned | |
|---------------------------|--------------------------|---------|------------------------------------|----------------------|--|-------------------------------|
| | From pounds; From cases: | | Pounds canned | Cases canned per ton | farm weight 1/ 24/2½'s | 24/303's : 24/2½'s : 6/10's : |
| | canned | 24/2½'s | from pounds | farm weight | 24/2½'s | 24/303's : 24/2½'s : 6/10's : |
| <u>Citrus fruit.</u> | | | | | | |
| Citrus salad | 2.096 | 91.32 | 0.477 | 21.9 | 38.8 | 31.8 23.8 .03333 |
| Grapefruit sections | 2.020 | 87.72 | 0.495 | 22.8 | 40.3 33.0 24.8 .03333 | |
| Orange sections | 2.222 | 96.62 | 0.450 | 20.7 | 36.6 30.0 22.5 .03333 | |
| <u>Other fruit.</u> | | | | | | |
| Apples | 1.873 | 72.46 | 0.534 | 27.6 | 48.6 39.9 30.0 .02809 | |
| Applesauce | 1.292 | 54.35 | 0.774 | 36.8 | 64.5 52.9 40.0 .04167 | |
| Apricots | 0.717 | 32.26 | 1.395 | 62.0 | 109.7 89.9 67.6 .02222 | |
| Berries: | | | | | | |
| Blackberries | 0.667 | 28.09 | 1.500 | 71.2 | 125.0 102.5 77.5 .04167 | |
| Blueberries | 0.926 | 38.99 | 1.080 | 51.3 | 90.0 73.8 55.8 .04167 | |
| Boysenberries | 0.694 | 29.24 | 1.440 | 68.4 | 120.0 98.4 74.4 .04167 | |
| Gooseberries | 0.595 | 25.06 | 1.680 | 79.8 | 140.0 114.8 86.8 .04167 | |
| Loganberries | 0.654 | 29.24 | 1.530 | 68.4 | 120.0 98.4 74.4 .03921 | |
| Raspberries | 0.641 | 26.99 | 1.560 | 74.1 | 130.0 106.6 80.6 .04167 | |
| Strawberries | 0.725 | 30.49 | 1.380 | 65.6 | 115.0 94.3 71.3 .04167 | |
| Cherries: | | | | | | |
| Red tart-pitted | 1.055 | 45.87 | 0.948 | 43.6 | 76.8 63.0 47.4 .02500 | |
| Sweet-pitted | 1.022 | 44.44 | 0.979 | 45.0 | 79.6 65.2 49.0 .02299 | |
| Sweet-unpitted | 0.684 | 30.77 | 1.462 | 65.0 | 115.0 94.2 70.8 .02222 | |
| Cranberries | 0.388 | 16.31 | 2.580 | 122.6 | 2/215.0 176.3 133.3 .04167 | |
| Figs | 0.654 | 29.41 | 1.530 | 68.0 | 120.4 98.6 74.1 .02222 | |
| Fruit cocktail | 0.889 | 40.00 | 1.125 | 50.0 | 88.5 72.5 54.5 .02222 | |
| Fruits for salad | 0.889 | 40.00 | 1.125 | 50.0 | 88.5 72.5 54.5 .02222 | |
| Olives 3/ | 0.945 | 25.51 | 1.058 | 78.4 | 138.6 114.1 85.4 .03704 | |
| Peaches: | | | | | | |
| Clingstone | 0.836 | 36.36 | 1.196 | 55.0 | 97.4 79.8 60.0 .02299 | |
| Freestone | 1.022 | 44.44 | 0.979 | 45.0 | 79.6 65.2 49.0 .02299 | |
| Pears | 1.000 | 43.48 | 1.000 | 46.0 | 81.4 66.7 50.1 .02299 | |
| Pineapple | 1.709 | 76.92 | 0.585 | 26.0 | 46.0 37.7 28.3 .02222 | |
| Plums, fresh | 0.663 | 29.85 | 1.508 | 67.0 | 118.6 97.2 73.0 .02222 | |

1/ Basic figure is 24/2's for citrus; 24/303's for applesauce and berries; 6/10's for apple slices and red tart cherries; 24/300's for cranberries; and 24/2½'s for other products. Case conversion factors based on table 49.

2/ Basis 24/300's.
3/ Drained weight.

NOTE: Relationships between farm and processed weights for most commodities vary widely from season to season and between localities. Factors shown in this table represent average relationships for all producing areas.

FRUITS AND VEGETABLES, CANNED

Table 52.--Factors relating to farm and processed weights for canned vegetables

| Commodity | Pounds farm weight | | | Factors for obtaining equivalent-- | | | Cases 24/303's from pounds canned |
|--------------------------------|--------------------|-------------|-------------|------------------------------------|----------------------|--|---|
| | From pounds | | From cases | Pounds canned | Cases canned per ton | Cases 24/303's from pounds farm weight | |
| | canned | of 24/303's | of 24/303's | 24/303's | 24/2.5's | 6/10's | |
| Asparagus | 1.190 | | 28.57 | .840 | 70 | 39.9 | 43.4 |
| Lima Beans <u>2/</u> | .641 | 15.38 | 1.560 | 1.30 | 74.1 | 80.6 | .04167 |
| Snap Beans | .687 | 16.00 | 1.456 | 1.25 | 71.2 | 77.5 | .04167 |
| Beets | 1.190 | 28.57 | .840 | 70 | 39.9 | 43.4 | .04292 |
| Carrots | 1.282 | 30.77 | .780 | 65 | 37.0 | 40.3 | .04167 |
| Corn: | | | | | | | |
| Cream style | 2.252 | 54.05 | .444 | 37 | 21.1 | 22.9 | .04167 |
| Whole grain | 2.604 | 62.50 | .384 | 32 | 18.2 | 19.8 | .04167 |
| Mushrooms | 1.480 | 34.48 | .676 | 58 | 33.1 | 36.0 | .04292 |
| Okra | 1.034 | 24.10 | .967 | 83 | 47.3 | 51.5 | .04292 |
| Peas <u>2/</u> | .725 | 17.39 | 1.380 | 115 | 65.6 | 71.3 | .04167 |
| Pimientos | 2.452 | 57.14 | .408 | 35 | 20.0 | 21.7 | .04292 |
| Potatoes, white | 1.111 | 26.67 | .900 | 75 | 42.8 | 46.5 | .04167 |
| Pumpkin and squash: | | | | | | | |
| Sauerkraut | 2.778 | 66.67 | .360 | 30 | 17.1 | 18.6 | .04167 |
| Spinach | 1.590 | 37.04 | .629 | 54 | 30.8 | 33.5 | .04292 |
| Sweetpotatoes | .808 | 18.18 | 1.238 | 110 | 62.7 | 68.2 | .04444 |
| Tomatoes | 1.144 | 26.67 | .874 | 75 | 42.8 | 46.5 | .04292 |
| Tomato catsup <u>3/</u> : | 1.561 | 36.36 | .641 | 55 | 31.4 | 34.1 | .04292 |
| Tomato juice | 2.469 | 66.67 | .405 | 30 | 17.1 | 18.6 | .03704 |
| Tomato paste <u>3/</u> : | 1.528 | 36.36 | .654 | 55 | 31.4 | 34.1 | .04202 |
| Tomato puree <u>4/</u> : | 5.432 | 142.86 | .184 | 14 | 8.0 | 8.7 | .03802 |
| Pickles | 3.333 | 80.00 | .300 | 25 | 14.2 | 15.5 | .04167 |
| | .744 | 17.86 | 1.344 | 112 | 63.8 | 69.4 | .04167 |

1/ Basic figure is yield of 24/303's per ton. One case 24/303's is equivalent to 0.57 cases 24/2 1/2's and 0.62 cases 6/10's.

2/ Shelled basis.

3/ 33 percent solids.

4/ 11 percent solids.

NOTE: See table 51.

FRUITS AND VEGETABLES, DEHYDRATED AND DRIED

Table 53.--Relation between farm and processed weights

| Commodity | Factors for converting to-- | | |
|-----------------------------------|--|---------------------------------------|---|
| | Farm weight from: natural condition | Farm weight from: packed processed | Packed processed weight from natural condition |
| | weight | weight | weight |
| Apples..... | 8.00 | 8.00 | 1.00 |
| Apricots..... | 6.00 | 5.56 | 1.08 |
| Dates: <u>1/</u> | : | | |
| Whole..... | 1.00 | 1.00 | 1.00 |
| Pitted..... | --- | 1.14 | .875 |
| Figs..... | 3.00 | 2.94 | 1.02 |
| Peaches: | : | | |
| Cling..... | 7.50 | 6.94 | 1.08 |
| Freestone: | : | | |
| Elberta..... | 7.00 | 6.48 | 1.08 |
| Other..... | 6.00 | 5.55 | 1.08 |
| Pears..... | 6.50 | 6.31 | 1.03 |
| Prunes: <u>2/</u> | : | | |
| California..... | 2.70 | 2.60 | 1.04 |
| Pacific Northwest..... | 3.14 | 3.05 | 1.03 |
| Raisins: | : | | |
| Thompson, sultana <u>3/</u> | 4.30 | 4.62 | .93 |
| Golden seedless..... | 4.30 | 4.53 | .95 |
| Muscat, seeded..... | 4.00 | 5.00 | .80 |
| | : | | |

1/ Includes only farm sales of dates for human consumption after farm cullage.
 Average farm sales of cull dates directly into non-food channels estimated at 14%
 of U.S. production.

2/ To convert canned dried prunes to dried prunes, multiply by 0.691085.

3/ Includes unseeded muscats.

FRUITS AND VEGETABLES, DEHYDRATED AND DRIED

Table 54.--Freeze-drying: Relation of freeze-dried product to frozen weight for selected fruits and vegetables 1/

| Items | Frozen food before freeze-drying | Weight of freeze-dried products as a percentage of frozen counterpart | Factors used to multiply freeze-dried weight to convert back to frozen weight |
|---|----------------------------------|---|---|
| | Percentage moisture | Percent | Percent |
| Apples, uncooked, sliced, sweetened | 73.3 | 27.2 | 3.7 |
| Apricots, non-cooked | 85.4 | 14.9 | 6.7 |
| Blueberries, non-cooked, unsweetened | 85.0 | 15.3 | 6.5 |
| Broccoli, cooked or non-cooked | 90.6 | 9.6 | 10.4 |
| Brussels sprouts, cooked or non-cooked | 89.3 | 10.9 | 9.2 |
| Cauliflower, cooked or non-cooked | 92.9 | 7.2 | 13.9 |
| Green peas, cooked | 81.7 | 18.7 | 5.4 |
| Green peppers, cooked | 94.7 | 5.4 | 18.5 |
| Mushrooms, non-cooked, whole, pieces or sliced | 90.4 | 9.8 | 10.2 |
| Pears, non-cooked pieces or slices | 82.7 | 17.6 | 5.7 |
| Pineapple, non-cooked slices or chunks, sweetened | 77.1 | 23.4 | 4.3 |
| Plums, Italian, non-cooked slices or pieces | 78.7 | 21.7 | 4.6 |
| Raspberries, red, non-cooked | 74.3 | 26.2 | 3.8 |
| Snap beans, cooked | 91.6 | 8.6 | 11.6 |
| Strawberries, whole, non-cooked | 75.5 | 24.8 | 4.0 |

1/ Freeze-dried products contain 2% moisture.

FRUITS AND VEGETABLES, DEHYDRATED AND DRIED

Table 55.--Dehydrofreezing: Relationship between moisture content of product and weight reduction

| Percentage original moisture content | Percentage moisture content in product at percentage weight reduction of-- | | | | Percent | Percent | Percent |
|---|---|---------|---------|---------|---------|---------|---------|
| | 50 | : | 60 | : | 70 | : | 80 |
| | Percent | Percent | Percent | Percent | Percent | Percent | Percent |
| 95 | 90 | 87.5 | 83.3 | 75 | | | |
| 90 | 80 | 75.0 | 66.7 | 50 | | | |
| 85 | 70 | 62.5 | 50.0 | 25 | | | |
| 80 | 60 | 50.0 | 33.3 | 0 | | | |
| 75 | 50 | 37.5 | 16.7 | | | | |
| 70 | 40 | 25.0 | 0 | | | | |
| 65 | 30 | 12.5 | | | | | |
| 60 | 20 | 0 | | | | | |
| 55 | 10 | | | | | | |
| 50 | 0 | | | | | | |
| | | | | | | | |

Table 56.--Dehydrofrozen fruits and vegetables: Relation between prepared material and dehydrofrozen product

| Commodity | Pounds of prepared material to produce one pound dehydrofrozen product <u>1/</u> | |
|------------------|---|---------|
| | | Pounds |
| Apples | | 2 |
| Carrots | | 2 |
| Cherries | | 2 - 2.5 |
| Green peas | | 2 |
| Pimientos | | 3 |
| Potatoes: | | |
| Piece form | | 2 |
| Mashed | | 4 |
| | | |

1/ After peeling, trimming, and cutting. Preparation losses should be the same as for freezing.

FRUITS AND VEGETABLES, DEHYDRATED AND DRIED

Table 57.--Fruits, Dehydrated (low-moisture): Relation between farm and processed weights

| Items | Packaged weight of dehydrated product | | Pounds of fresh weight to make one pound of dehydrated product |
|--------------------|--|------------|---|
| | No. 10 can | Gallon can | |
| | <u>Pounds</u> | | <u>Pounds</u> |
| Apples: | | | |
| Wedges | 1.5 | --- | |
| Slices | 1.5 | --- | |
| Dice | 2.0 | --- | |
| Nuggets | 2.5 | --- | |
| Powder | --- | 5) | 11.0 |
| Apricots: | | | |
| Slices | 3.5 | --- | |
| Dice | 3.5 | --- | |
| Nuggets | 3.5 | --- | |
| Powder | --- | 6) | 7.1 |
| Cherries: | | | |
| Sour-pitted | .7 | --- | 7.0 |
| Dates: | | | |
| Nuggets | 3 | --- | |
| Powder | --- | 6) | 1.75 <u>1/</u> |
| Figs: | | | |
| Slices | 3 | --- | |
| Powder | --- | 6) | 1.35 <u>1/</u> |
| Peaches: | | | |
| Slices | 3 | --- | |
| Dice | 3 | --- | |
| Nuggets | 3 | --- | |
| Powder | --- | 6) | 7.1 |
| Pears: | | | |
| Slices | 1.5 | --- | 11.0 |
| Prunes: | | | |
| Whole pitted | 3 | --- | |
| Nuggets | 3 | --- | |
| Powder | --- | 6) | 1.71 <u>1/</u> |
| Strawberries: | | | |
| (Freeze-dried) ... | .7 | --- | 11.0 |

1/ From commercially dried fruit.

Table 58.--Vegetables, dehydrated: Relations between farm and processed weights and weight of product per 5-gallon container

| Commodity | Percentage moisture content | Average for raw material: | Average losses from sizing, trimming; | Factors for converting to-- | Equivalent weight from farm weight | Product weight from processed: | Weight of product per 5-gallon container |
|----------------------------|-----------------------------|---------------------------|---------------------------------------|-----------------------------|------------------------------------|--------------------------------|--|
| | | | Processed weight from other material: | | | | |
| Asparagus..... | 93 | 4 | 55 | .033 | 30 | Dice | 8 |
| Beans, green..... | 89 | 4 | 30 | .080 | 12.5 | Powder | 17 |
| Beets..... | 88 | 5 | 33 | .085 | 12 | ½-inch cut | 7 |
| Cabbage..... | 92 | 4 | 43 | .048 | 21 | Powder | 30 |
| Carrots..... | 88 | 4 | 33 | .083 | 12 | Dice | 9 |
| Celery 3/4: | | | | | | Powder | 30 |
| Stalk and leaf flakes..... | | | | | | Dice | 18 |
| Stalk dice..... | 94 | 3.5 | 20 | .050 | 20 | Flakes | 3-6 |
| Garlic..... | 71 | 5 | 47 | .033 | 30 | Dice | 8 |
| Greens..... | 92 | 4 | 15 | .260 | 4 | Sliced | 15 |
| Onion..... | 88 | 4 | 20-50 | .040-.067 | 15-25 | Powder | 30 |
| Parsley..... | 84 | 5 | 11 | .110 | 9 | Flakes | 8 |
| Peas, green: | | | | | | Powder | 10-15 |
| Peppers: | 78 | 4 | 15 | .140 | 7 | Flakes | 25 |
| Green bell..... | 93 | 3.5 | 10 | .200 | 5 | Powder | 4 |
| Red bell..... | 91 | 5.5 | 38 | .045 | 22 | Dice | 20 |
| Potatoes: | | | | | | Dice | 18 |
| Dice..... | 80 | 6 | 45 | .053 | 19 | Powder | 10 |
| Granules..... | 78 | 6 | 33 | .125 | 8.0 | Powder | 25 |
| Flakes..... | 80 | 4.5 | 33 | .14 | 7.1 | Dice | 8 |
| Turnips..... | 91 | 5 | 33 | .14 | 7.1 | Powder | 20 |
| Sweet potato flakes..... | 69 | 3 | 23.5 | .063 | 16 | Dice | 14 |
| | | | | .143 | 7 | Powder | 25 |

Table 58.--Vegetables, dehydrated: Relations between farm and processed weights and weight of product per 5-gallon container--Continued

FRUITS AND VEGETABLES, DEHYDRATED AND DRIED

| Commodity | Percentage moisture: content | Average losses: from sizing, trimming; peeling, blanching, | Factors for converting to-- 2/ 5-gallon container | Weight of product per 5-gallon container |
|--------------------|---------------------------------|--|---|---|
| | Average : | | | |
| | for raw : Product: | sorting, and other | Processed : Equivalent | : |
| | material : material | (percent) 1/ 43 | weight from: farm weight | Product : Pounds |
| | | | farm weight: from processed: | |
| Onions, green..... | 88 | 4 | .071 | 14 |
| Tomato flakes..... | 93 | 4 | 31 | 6 |
| Horseradish..... | 75 | 5 | 31 | Flakes |
| Leek..... | 88 | 4 | 27 | Minced |
| Okra..... | 90 | 5 | 13 | 8 |
| Pimiento..... | 88 | 4 | 70 | Flakes |
| Pumpkin..... | 91 | 5 | 13 | Powder |

1/ Includes fines and defects removed during final inspection of dried product and other process losses.
 2/ Successful dehydration of many of these vegetables depends upon [heat treatment](#).

Grades to other kinds of processing. If such outlets are not available, shrinkage ratios will be greater than shown herein.

3/ Celery tops (trimmings) may also be dehydrated.

FRUITS AND VEGETABLES, FROZEN

Table 59.--Frozen fruits and vegetables: Estimated average relation between farm and processed weights

| Commodity | Percentage recovery | Factors for converting to: | | | Approximate fruit-to-sugar ratio |
|-----------------------------|---------------------|----------------------------|---------------|------------------|----------------------------------|
| | | Farm weight | Frozen weight | from farm | |
| | | from frozen weight | <u>1/</u> | weight <u>1/</u> | |
| Frozen fruits: | Percent | | | | |
| Apples | 60 | 1.67 | 0.60 | 0 or 7 to 1 | |
| Apricots | 78 | 1.10 | .91 | 6 or 8 to 1 | |
| Berries: | | | | | |
| Blackberries | 95 | 1.05 | .95 | 0 | |
| Blueberries | 97 | 1.03 | .97 | 0 | |
| Boysenberries | 88 | 1.14 | .88 | 0 | |
| Gooseberries | 97 | 1.03 | .97 | 0 | |
| Loganberries | 88 | 1.14 | .88 | 0 | |
| Raspberries | 95 | 1.05 | .95 | 0 | |
| Strawberries | 93 | .89 | .12 | 5 or 4 to 1 | |
| Cherries, sour | 75 | 1.11 | .90 | 5 to 1 | |
| Cherries, sweet | 85 | 1.18 | .85 | 0 | |
| Grapes | 85 | 1.18 | .85 | 0 | |
| Peaches | 67 | 1.25 | .80 | 5 to 1 | |
| Pineapples | 50 | 1.60 | .625 | 4 to 1 | |
| Prunes | 85 | 1.18 | .85 | 0 | |
| Frozen vegetables: | | | | | |
| Asparagus | 52 | 1.92 | .52 | 2/ | |
| Lima beans <u>3/</u> | 95 | 1.05 | .95 | 2/ | |
| Snap beans | 85 | 1.18 | .85 | 2/ | |
| Broccoli | 75 | 1.33 | .75 | 2/ | |
| Brussels sprouts | 75 | 1.33 | .75 | 2/ | |
| Cauliflower | 70 | 1.43 | .70 | 2/ | |
| Corn, cut | 27 | 3.70 | .27 | 2/ | |
| Carrots | 55 | 1.82 | .55 | 2/ | |
| Okra | 85 | 1.18 | .85 | 2/ | |
| Peas, green <u>3/</u> | 92 | 1.09 | .92 | 2/ | |
| Peas, southern | 50 | 2.00 | .50 | 2/ | |
| Potatoes, white | 40 | 2.50 | .40 | 2/ | |
| Peppers, sweet | 70 | 1.43 | .70 | 2/ | |
| Spinach | 70 | 1.43 | .70 | 2/ | |
| Other greens | 75 | 1.33 | .75 | 2/ | |
| Squash | 55 | 1.82 | .55 | 2/ | |
| Sweetpotatoes | 50 | 2.00 | .50 | 2/ | |

1/ Frozen weight is weight of frozen fruit plus sugar content. Where more than one fruit-to-sugar ratio is shown, the first is used in this computation.

2/ Fruit-to-sugar ratio does not apply to vegetables.

3/ Shelled.

FRUITS AND VEGETABLES, JUICE POWDERS

Table 60.--Fruit and vegetable juice powders: Factors relating to farm and processed weights

| Items | Approximate percentage solids content of juice | Yield of juice as a percentage of raw material | Factors for converting to-- | |
|-------------------|---|--|--------------------------------------|--|
| | Percent | Percent | Processed weight from farm weight | Equivalent farm weight from processed weight |
| Apple | .14 | 75 | 0.107 | 9 |
| Citrus: | | | | |
| Grapefruit | 11 | 49 | .055 | 18 |
| Lemon: | 9 | 40 | .037 | 27 |
| Orange: | 13 | 55 | .072 | 14 |
| Grape | 17 | 75 | .130 | 8 |
| Pineapple 1/ | 15 | 58 | .089 | 11 |
| Prune | 32 | 74 | .250 | 4 |
| Tomato | 6- $\frac{1}{4}$ | 70 | .044 | 23 |

1/ Assuming juice is only product. In practice, however, juice is made only from edible grade peels, cores, trimmings, and sortouts.

FRUITS AND VEGETABLES, POTATO PRODUCTS

Table 61.--Potatoes: Estimated conversion factors for selected potato products

| Products | Pounds, farm weight | Pounds of finished product | Percent recovery | To obtain farm weight equivalent, multiply product weight by -- |
|---------------------|---------------------|----------------------------|------------------|---|
| | <u>Pounds</u> | <u>Pounds</u> | <u>Percent</u> | <u>Number</u> |
| <u>Starch</u> | | | | |
| Maine | 100 | 9.3 | 9.3 | 10.75 |
| Idaho | 100 | 12.5 | 12.5 | 8.0 |
| Average | 100 | 11.1 | 11.1 | 9.0 |
| <u>Frozen</u> | 100 | 40 | 40 | 2.5 |
| <u>Chips</u> | 100 | 1/24.5 | 1/24.5 | 4.08 |
| | | | | |

1/ From potatoes with 1.075 specific gravity.

Note: In commercial potato peeling plants, preparation loss including waste and shrinkage ranged from 5 to 48%, averaging approximately 25%.

Source: Marketing Research Report No. 105, issued October, 1955.

HOPS

Table 62.--Hop content of beer

| Size of container | Factor for converting to hop content (cured weight) |
|---------------------------|---|
| | <u>Pounds</u> |
| Barrel (31 gallons) | 0.31 |
| | |

TREE NUTS

Table 63.--Tree nuts: Relation between shelled and in-shell, and between farm and retail weights

| Commodity | Factors for converting to-- | | | |
|----------------------|-----------------------------|--|--|--|
| | Shelled weight: | In-shell equivalent from in-shell weight | Retail weight from orchard-run 1/ shelled weight | Orchard run equivalent from retail weight 1/ |
| | | : from | : from | : from |
| | | | | |
| Almonds: | | | | |
| Domestic..... | 0.52 | 1.92 | 0.95 | 1.05 |
| Imported..... | .30 | 3.33 | --- | --- |
| Brazil nuts..... | .50 | 2.00 | --- | --- |
| Cashews..... | .22 | 4.55 | --- | --- |
| Chestnuts..... | .84 | 1.19 | --- | --- |
| Filberts: | | | | |
| Domestic..... | .40 | 2.50 | .95 | 1.05 |
| Imported..... | .45 | 2.22 | --- | --- |
| Macadamias (Hawaii): | .30 | 3.33 | --- | --- |
| Pecans: | | | | |
| Improved..... | .40 | 2.50 | .91 | 1.10 |
| Seedling..... | .36 | 2.78 | .91 | 1.10 |
| Walnuts, English: | | | | |
| Domestic 2/..... | .37 | 2.67 | .87 | 1.15 |
| Imported..... | .35 | 2.86 | --- | --- |
| Walnuts, black..... | .17 | 5.88 | --- | --- |
| | | | | |

1/ Orchard-run weight before culling. Both orchard-run and retail weight are in-shell basis.

2/ Average for portion of crop shelled commercially. Equivalent shelled-in-shell ratio for graded walnuts sold in-shell is 0.45, and average for entire U.S. walnut crop is 0.41.

COFFEE AND TEA PRODUCTS

Table 64.--Factors for obtaining equivalents of green coffee beans and leaf tea from specified products

| Product | Description | Factors |
|---------------------------------------|--|---------|
| Coffee, green, bag 1/ | Standard bag of 60 kilograms, number of pounds | 132.276 |
| Coffee, parchment | The green coffee bean contained in the parchment skin | .80 |
| Coffee, roasted | Green coffee roasted to any degree and includes ground coffee | 1.19 |
| Coffee, soluble, pure (instant) | The water-soluble solids derived from roasted coffee | 3.00 |
| Coffee, decaffeinated | Green, roasted or soluble coffee from which caffeine has been extracted: | |
| | Green | 1.00 |
| | Roasted | 1.19 |
| | Soluble (instant) | 3.00 |
| Tea, soluble (instant) | 3 pounds of leaf tea yields 1 pound of soluble tea | 3.00 |

1/ All coffee in the naked bean form before roasting.

YEAST

Table 65.--Relation between yeast solids of specified types of yeast and yeast products

| Product | Factors for converting to -- | |
|---------------------------|------------------------------|------------------|
| | Compressed yeast | Dry active yeast |
| Compressed yeast | 1.00 | 0.305 |
| Dry active yeast 1/ | 3.17 | 1.00 |

1/ The functional relation between dry and compressed yeast differs from the weight relation. It requires about 40-45% of the weight of compressed yeast to give an equivalent activity of dried yeast. These factors are based upon the following average moisture levels: Compressed yeast, 70.5%; dry active yeast, 8.0%; nutritional yeast, 4.5%.

TOBACCO

Table 66.--Conversion factors for adjusting for losses in weight incident to stemming, handling, sweating, and drying all types of tobacco 1/

| Type | <u>Auction market types</u> | | | | | | |
|----------------------------|-----------------------------|--------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|----------------------------------|-------|
| | U.S. type no. | Factors to multiply by to convert -- | | | | | |
| | | Farm sales weight to Stemmed | Unstemmed weight to Unstemmed | Unstemmed Farm sales: weight | Stemmed Farm sales: Unstemmed | Stemmed Farm sales: weight | |
| | | Stemmed | Unstemmed | Stemmed | Farm sales: Unstemmed | Farm sales: weight | |
| Flue-cured | 11-14 | 0.682 | 0.893 | 0.764 | 1.12 | 1.309 | 1.466 |
| : | : | : | : | : | : | : | : |
| Va. fire-cured | 21 | .620 | .813 | .763 | 1.23 | 1.311 | 1.613 |
| Ky. & Tenn. fire-cured .. | 22-23 | .680 | .900 | .756 | 1.11 | 1.324 | 1.471 |
| : | : | : | : | : | : | : | : |
| Burley | 31 | .664 | .893 | .743 | 1.12 | 1.345 | 1.506 |
| Southern Maryland | 32 | .702 | .950 | .739 | 1.05 | 1.353 | 1.424 |
| : | : | : | : | : | : | : | : |
| One Sucker | 35 | .637 | .900 | .708 | 1.11 | 1.413 | 1.570 |
| Green River | 36 | .637 | .885 | .720 | 1.13 | 1.389 | 1.570 |
| Va. sun-cured | 37 | .650 | .862 | .754 | 1.16 | 1.326 | 1.538 |
| : | : | : | : | : | : | : | : |
| : | : | : | : | : | : | : | : |
| : | : | : | : | : | : | : | : |
| Pa. Seedleaf | 41 | 0.540 | 0.840 | 0.643 | 1.19 | 1.556 | 1.852 |
| Ohio filler | 42-44 | .530 | .840 | .631 | 1.19 | 1.585 | 1.887 |
| Puerto Rican | 46 | .590 | .862 | .684 | 1.16 | 1.461 | 1.695 |
| : | : | : | : | : | : | : | : |
| Conn. Broadleaf | 51 | .550 | .850 | .647 | 1.18 | 1.545 | 1.818 |
| Conn. Havana Seed | 52 | .540 | .850 | .635 | 1.18 | 1.574 | 1.852 |
| Southern Wisconsin | 54 | .530 | .820 | .646 | 1.22 | 1.547 | 1.887 |
| Northern Wisconsin | 55 | .530 | .820 | .646 | 1.22 | 1.547 | 1.887 |
| : | : | : | : | : | : | : | : |
| Conn. shade-grown | 61 | .705 | .880 | .803 | 1.14 | 1.245 | 1.419 |
| Ga. & Fla. shade-grown .. | 62 | .710 | .880 | .810 | 1.14 | 1.235 | 1.408 |
| : | : | : | : | : | : | : | : |
| Southern types | 11-37 | .550 | .880 | .625 | 1.14 | 1.600 | 1.818 |
| : | : | : | : | : | : | : | : |
| : | : | : | : | : | : | : | : |
| : | : | : | : | : | : | : | : |
| : | : | : | : | : | : | : | : |
| <u>Foreign-grown types</u> | | | | | | | |
| Foreign-grown cigar | 81-88 | .616 | .862 | .714 | 1.16 | 1.400 | 1.624 |
| Foreign-grown cigarette .. | 90 | .682 | .909 | .750 | 1.10 | 1.333 | 1.466 |
| : | : | : | : | : | : | : | : |

1/ Information in this table is based on surveys of the tobacco industry in 1955 and 1960 and modified as necessary by recent information from the industry.

NAVAL STORES

Weights, measures, conversion factors

CRUDE PINE GUM: 1 gum naval stores "crop" produces on an average about 215 standard barrels (435 lb. net each) crude pine gum and represents 10,000 "faces" (usually 1 "face" per tree in U.S.).

1 standard barrel of gum yields on the average, about 9.8 gallons gum turpentine and 299 pounds rosin.

ROSIN:

| | | |
|------|-------------------------|----------------------------|
| Drum | Net weight, gum rosin | 517 lb. <u>1/</u> |
| | Net weight, other types | 500-520 lb. (avg. 515 lb.) |
| | Gross weight, gum rosin | 534 lb. |
| | Volume | 8.27 cu. ft. |
| | Shipping space | 9.4 cu. ft. |

| | | |
|-----|------------|---------|
| Bag | Net weight | 100 lb. |
|-----|------------|---------|

TURPENTINE:

| | | |
|--------|--------------------------|-------------|
| Barrel | Liquid measure at 70° F. | 50 gal. |
| Gallon | Cubic measure at 70° F. | 231 cu. in. |
| Drum | Net weight | 396 lb. |
| | Gross weight | 450 lb. |
| | Liquid measure at 70° F. | 55 gal. |

Tank car usually contains about 4,000, 6,000 or 8,000 gallons, mostly 6,000 or 8,000 gallons.

Tank truck usually contains about 4,000 gallons.

1/ Statistical data published by the USDA are in terms of 520 pound drums.

Table 67.--Technical data on rosin (gum, steam distilled wood, and tall oil rosins)

| | : Gum | : Pale | : FF | : Tall |
|--|----------|----------|-----------|---------|
| | : rosin | : wood | : wood | : oil |
| | | : rosin | : rosin | : rosin |
| U.S.D.A. color grade range | H-X | I-X | FF | M-X |
| Softening point (ASTM, Ring & Ball), degrees C.: | 70-85 | 70-85 | 67-81 | 70-88 |
| Acid number | 160-172 | 161-170 | 150-158 | 158-175 |
| Saponification number | 168-180 | 167-176 | 162-170 | 163-180 |
| Unsaponifiable (percent by weight) | 5.5-10.0 | 6.0-10.0 | 8.5-14.0 | 3.0-8.0 |
| Specific gravity at 25° C (77° F) | | | 1.06-1.09 | |
| Weight per U.S. Gallon at 25° C | | | 8.8-9.0 | |

Table 68.—Technical data on spirits of turpentine (Gum spirits, steam distilled wood, and sulfate wood turpentines)

| Item | Type of turpentine | | |
|---|--------------------|----------------------------|--------------|
| | Gum spirits | Steam distilled wood | Sulfate wood |
| Specific gravity at 15.5°/15.5°C: | | | |
| Typical for fresh turpentine | 0.868 | 0.862 | 0.867 |
| Specification range (U.S. standard) | 0.860-0.875 | 0.860-0.875 | 0.860-0.875 |
| Specific gravity change per degree F | .00045 | .00045 | .00045 |
| Specific gravity change per degree C | .00082 | .00082 | .00082 |
| Average weight (pounds) per U.S. standard gallon at 70°F: | | | |
| Coefficient of expansion: Per degree F | 7.2 | 7.14 | 7.2 |
| Per degree C | .000525 | .000525 | .000525 |
| Per degree C | .000945 | .000945 | .000945 |
| Refractive index at 20°C: | | | |
| Typical index | 1.470 | 1.466 | 1.468 |
| Specification range (U.S. standard) | 1.465-1.478 | 1.465-1.478 | 1.465-1.478 |
| Refractive index change per degree C | .00045 | .00045 | .00045 |
| Distillation range (U.S. standard): | | | |
| Initial distillation temperature - degrees C | 150-160 | 150-160 | 150-160 |
| Distilling below 170°C, minimum percent | 90 | 90 | 90 |
| Flash point range: (Tag closed cup) - degrees F | 90-95 | 90-95 | 90-95 |
| (Cleveland open cup) - degrees F | 100-110 | 100-110 | 100-110 |
| Aniline point: Typical range - degrees C | 14-25 | 18-25 | 14-25 |
| Composition of American turpentines: - (percent) | | | |
| Alpha-pinene | 60-65 | 75-80 | 60-65 |
| Beta-pinene | 25-35 | 0-2 | 25-30 |
| Dipentene and other monocyclic terpenes | 5-8 | 15-20 | 5-7 |
| Camphene | --- | 4-8 | 0-2 |
| Total | 100 | 100 | 100 |

COTTON, COTTONSEED, AND COTTONSEED PRODUCTS

Computation and use of factors

Basis of computation. Factors have been computed on the basis of the 5 crop seasons from 1958-59 through 1962-63 and represent ratios of the 5-season averages. The 5-season average was used to bring the factors more nearly into conformity with current experience, and 1962-63 was used as the most recent year in the averages to avoid including certain figures which would be subject to revision for the 1963-64 season.

Use of factors. Users of these factors are cautioned with respect to the following limitations: The factors are not "official," even though they are based upon latest available official figures. Nor are they permanently fixed at the stated values because later information and shifts in relationships may necessitate revisions. Since basic data underlying certain series have differing variabilities, it should be kept clearly in mind that application of the factors will not necessarily result in the most satisfactory figure for use in current work if other evidence suggests that base period relationships are not continuing. Factors should be applied to U.S. totals only and not to State or area totals. The majority of these apply to full-season totals only.

Explanation of terms and statistical series

Gross weight running bale. A gross weight running bale of cotton is a "flat" bale of varying lint weight and tare as it comes from the gin. The 1958-62 average gross weight of running bales was 501.0 pounds. Since for more accurate statistical use the gross weight running bale has tare of 21.1 pounds, net weight of the running bale is 479.9 pounds of lint.

Tare. Generally the tare per running bale is considered to be 21 pounds, consisting of approximately 9 pounds of ties and approximately 12 pounds of bagging. Tare on the 500-pound gross weight "statistical" bale is calculated to have averaged 21.1 pounds over the 1958-62 period.

500-pound gross weight bale. To permit more accurate year-to-year comparisons of bales of fixed weight, the Crop Reporting Board publishes production estimates in terms of "statistical" bales of 500 pounds gross weight. Deducting tare of 21.1 pounds for this type of bale results in net lint weight of 478.9 pounds per 500 pound gross weight bale.

Lint and cottonseed turnout. The 1958-62 average percentage of lint turnout from seed cotton at gins was 34% for hand-picked, 24% for hand-snapped, 32% for machine-picked, 22% for machine-striped, and 30% for all methods of harvest except machine scrapped, a recent innovation. Lint turnout for machine scrapped averaged about 18% in 1962 and 1963. The seed cotton-to-lint and seed cotton-to-cottonseed factors and their opposites in the accompanying table were determined excluding trash, to permit their direct application to the Crop Reporting Board's estimates on cottonseed and lint.

COTTON

Table 69.--Types of bales used by various agencies in compiling statistical series on cotton

| U.S. Dept. of Agriculture : | | | | Census Bureau | | | |
|-----------------------------|------------------------------|---|----------------|----------------------------|----------------------------|--------------------|----------------|
| Crop Reporting Board | Foreign Agricultural Service | International Cotton Advisory Committee | : | 500-1b. gross weight bales | 500-1b. gross weight bales | Running bales | Running bales |
| 500-1b. | 500-1b. | 478-1b. | : | Running bales | 500-1b. | gross weight bales | Running bales |
| gross | gross | net | : | bales | gross | weight bales | bales |
| weight bales | weight bales | weight bales: | : | : | : | : | : |
| United States: | United States: | Foreign: Production | United States: | United States: | United States: | United States: | United States: |
| Production | Exports of American cotton | Imports Exports Stocks | Production | Production | Production | Ginnings | Production |
| | : Foreign: Consumption | : Consumption | Consumption | Consumption | consumption | Stocks | Stocks |
| | Production | : | : | : | of foreign | Consumption | Consumption |
| | Imports | : | : | : | cotton | of domestic | cotton |
| | Exports | : | : | : | in U.S. | | |
| | Stocks | : | : | : | : | | |
| | | : | : | : | : | | |
| | | : | : | : | : | | |

1/ Net weight of 480 pounds lint is used for most countries beginning with 1946, and 478 pounds for prior years.

COTTON

Table 70.--Factors for converting cotton acreages and products to various equivalents 1/

| From | To obtain | Factors |
|----------------------------------|----------------------------------|---------|
| Acreage planted | Acreage harvested | .952 |
| | Cottonseed produced - tons | .374 |
| | Cottonseed crushed - tons | .345 |
| | Lint, running bales | .901 |
| | Lint, 500-lb. gross wt. bales | .902 |
| | Linters, 600-lb. gross wt. bales | .102 |
| Acreage harvested | Acreage planted | 1.050 |
| | Cottonseed produced - tons | .392 |
| | Cottonseed crushed - tons | .363 |
| | Lint, running bales | .946 |
| | Lint, 500-lb. gross wt. bales | .948 |
| | Linters, 600-lb. gross wt. bales | .107 |
| Cottonseed produced, tons | Cottonseed crushed - tons | .924 |
| | Linters, 600-lb. gross wt. bales | .273 |
| Cottonseed crushed, tons | Linters, 600-lb. gross wt. bales | .296 |
| Lint, running bales | Cottonseed produced - tons | .415 |
| | Cottonseed crushed - tons | .383 |
| | Lint, 500-lb. gross wt. bales | .998 |
| | Lint, pounds | 479.9 |
| | Linters, 600-lb. gross wt. bales | .113 |
| Lint, 500-lb. gross wt. bales | Cottonseed produced - tons | .414 |
| | Cottonseed crushed - tons | .383 |
| | Lint, running bales | 1.002 |
| | Lint, pounds | 478.9 |
| | Linters, 600-lb. gross wt. bales | .113 |
| Linters, 600-lb. gross wt. bales | Linters, pounds | 578.0 |
| Seed cotton, pounds | Lint, pounds | 2/.366 |
| | Cottonseed, pounds | 2/.634 |
| Cottonseed, pounds | Seed cotton, pounds | 2/1.577 |

1/ All figures based on the 5-year average, 1958-62.

2/ Determined on the basis of Crop Reporting Board estimates of total lint cotton and cottonseed production excluding trash.

Cottonseed for planting: The 1958-62 average quantity of seed used for planting one acre of cotton was 31.0 pounds per acre.

COTTON

Table 71.--Factors for converting yield per acre, bale weights, and pounds of lint to various equivalents 1/

| From | : | To obtain | : | Factors |
|---------------------------------------|---|---------------------------------------|---|-----------|
| Lint, yield per planted acre, lb. | : | Lint, yield per harvested acre, lb. | : | 1.050 |
| Lint, yield per harvested acre, lb. | : | Lint, yield per planted acre, lb. | : | .953 |
| Lint, gross wt. of running bales, lb. | : | Lint, net wt. of running bales, lb. | : | .958 |
| Lint, net wt. of running bales, lb. | : | Lint, gross wt. of running bales, lb. | : | 1.044 |
| Lint, lb. | : | Seed cotton, lb. | : | :2/ 2.732 |
| | : | Cottonseed, lb. | : | :2/ 1.732 |
| | : | | : | |

1/ All figures based on the 5-year average, 1958-62.

2/ Determined on the basis of the Crop Reporting Board's estimates of total lint cotton and cottonseed production excluding trash.

Table 72.--Factors relating to cottonseed products

| Product | Factors for converting cottonseed to products | |
|---------------------|---|----------------|
| | Tons to tons | Tons to pounds |
| Crude oil 1/ | .169 | 338 |
| Cake and meal | .464 | 927 |
| Hulls | .232 | 464 |
| Linters | .088 | 177 |
| Waste | .047 | 94 |
| | : | |

1/ These figures are 5-year, 1958-62 averages and differ slightly from the 5-year, 1959-63 averages shown in table 24.

Table 73.--Space displacement of one ton of cotton and cotton products

| Product | : | Cubic feet |
|-----------------------------|---|------------|
| Untramped seed cotton | : | 340 |
| Cottonseed | : | 76 |
| Meal | : | 37 |
| Cake and meal, sacked | : | 38 |
| Oil | : | 35 |
| | : | |

WOOL

Table 74.--Scoured yield of greasy shorn and pulled domestic wools

| Grades of greasy wool | Domestic | Scoured yield | |
|--|----------------|---------------|--------|
| | production of | Shorn | Pulled |
| | greasy wool 1/ | | |
| : | | | |
| : | | | |
| Percent | | | |
| Fine; 64's and finer | 42.7 | 42 | 67 |
| 1/2 blood; 60's and 62's | 20.1 | 44 | 72 |
| 3/8 blood; 56's and 58's | 17.7 | 54 | 79 |
| 1/4 blood; 50's and 54's | 16.0 | 58 | 81 |
| Low 1/4 blood; 46's and 48's | 3.0 | 60 | 82 |
| Common and braid; 36's, 40's : and 44's | .5 | 63 | 84 |
| : | | | |
| Weighted average, all grades.... | 100.0 | 47.7 | 72.9 |
| : | | | |

1/ Adapted from Wools for Carpets and Papermakers' Felt, United States Tariff Commission, 1959, and from unpublished data furnished by the Statistical Reporting Service.

APPENDIX

Table 75.--Factors for converting ounces to pounds

| Number of ounces | + 0 ounces | + 1/4 ounce | + 1/2 ounce | + 3/4 ounce |
|---------------------|------------|-------------|-------------|-------------|
| 0 | --- | 0.015625 | 0.031250 | 0.046875 |
| 1 | 0.062500 | .078125 | .093750 | .109375 |
| 2 | .125000 | .140625 | .156250 | .171875 |
| 3 | .187500 | .203125 | .218750 | .234375 |
| 4 | .250000 | .265625 | .281250 | .296875 |
| 5 | .312500 | .328125 | .343750 | .359375 |
| 6 | .375000 | .390625 | .406250 | .421875 |
| 7 | .437500 | .453125 | .468750 | .484375 |
| 8 | .500000 | .515625 | .531250 | .546875 |
| 9 | .562500 | .578125 | .593750 | .609375 |
| 10 | .625000 | .640625 | .656250 | .671875 |
| 11 | .687500 | .703125 | .718750 | .734375 |
| 12 | .750000 | .765625 | .781250 | .796875 |
| 13 | .812500 | .828125 | .843750 | .859375 |
| 14 | .875000 | .890625 | .906250 | .921875 |
| 15 | .937500 | .953125 | .968750 | .984375 |

APPENDIX

Table 76.--Factors for converting domestic and metric weights and measures commonly used for agricultural commodities

| <u>Weight</u> | <u>Equivalent</u> | <u>Weight</u> | <u>Equivalent</u> |
|--|----------------------------|------------------|-------------------------|
| 1 ounce | = 28.3495 grams | 1 gram | = .035274 ounces |
| 1 pound | = 455.5925 grams | 1 gram | = .0022046 pounds |
| 1 pound | = .4535925 kilograms | 1 kilogram | = 2.204622 pounds |
| 1 pound | = .0045359 metric quintals | 1 metric quintal | = 220.4622 pounds |
| 1 pound | = .0005 short tons | 1 short ton | = 2000 pounds |
| 1 pound | = .0004536 metric tons | 1 metric ton | = 2204.622 pounds |
| 1 pound | = .0004464 long tons | 1 long ton | = 2240 pounds |
| 1 kilogram | = .0011023 short tons | 1 short ton | = 907.1849 kilograms |
| 1 kilogram | = .001 metric tons | 1 metric ton | = 1000 kilograms |
| 1 kilogram | = .0009842 long tons | 1 long ton | = 1016.047 kilograms |
| 1 short ton | = .907185 metric tons | 1 metric ton | = 1.102311 short tons |
| 1 long ton | = 1.016047 metric tons | 1 metric ton | = .984206 long tons |
| 1 short ton | = .892857 long tons | 1 long ton | = 1.120 short tons |
| 1 million lbs.= 500 | short tons | 1 short ton | = .002 million lbs. |
| 1 million lbs.= 453.5925 | metric tons | 1 metric ton | = .0022046 million lbs. |
| 1 million lbs.= 446.4286 | long tons | 1 long ton | = .002240 million lbs. |
| <u>60-lb. bushel: Wheat, white potatoes, soybeans</u> | | | |
| 1 bushel | = .030 short tons | 1 short ton | = 33.333 bushels |
| 1 bushel | = .0272155 metric tons | 1 metric ton | = 36.7437 bushels |
| 1 bushel | = .0267857 long tons | 1 long ton | = 37.333 bushels |
| 1 bushel | = .272155 metric quintals | 1 metric quintal | = 3.67437 bushels |
| 1 bushel | = 27.2155 kilograms | 1 kilogram | = .036744 bushels |
| <u>56-lb. bushel: Corn, rye, sorghum grain, flaxseed</u> | | | |
| 1 bushel | = .0280 short tons | 1 short ton | = 35.714 bushels |
| 1 bushel | = .0254 metric tons | 1 metric ton | = 39.368 bushels |
| 1 bushel | = .0250 long tons | 1 long ton | = 40.0 bushels |
| <u>48-lb. bushel: Barley, buckwheat, apples</u> | | | |
| 1 bushel | = .0240 short tons | 1 short ton | = 41.667 bushels |
| 1 bushel | = .021772 metric tons | 1 metric ton | = 45.9296 bushels |
| 1 bushel | = .021429 long tons | 1 long ton | = 46.667 bushels |
| <u>32-lb. bushel: Oats</u> | | | |
| 1 bushel | = .0160 short tons | 1 short ton | = 62.50 bushels |
| 1 bushel | = .014515 metric tons | 1 metric ton | = 68.8944 bushels |
| 1 bushel | = .014286 long tons | 1 long ton | = 70.0 bushels |
| <u>38-lb. bushel: Oats</u> | | | |
| 1 bushel | = .0190 short tons | 1 short ton | = 52.63 bushels |
| 1 bushel | = .01724 metric tons | 1 metric ton | = 58.016 bushels |
| 1 bushel | = .01696 long tons | 1 long ton | = 58.94 bushels |

APPENDIX

Table 77.--Conversion factors for test weight per Winchester bushel, test weight per imperial bushel, and kilograms per hectoliter 1/

| | Multiply by factor |
|--|-----------------------|
| <u>Pounds per Winchester bushel to</u> | |
| Pounds per imperial bushel..... | 1.032 |
| Kilograms per hectoliter..... | 1.287 |
| <u>Pounds per imperial bushel to</u> | |
| Pounds per Winchester bushel..... | .969 |
| Kilograms per hectoliter..... | 1.247 |
| <u>Kilograms per hectoliter to</u> | |
| Pounds per Winchester bushel..... | .777 |
| Pounds per imperial bushel..... | .802 |

1/ Winchster bushel is the standard U.S. bushel (volume).

APPENDIX

Table 78.--Comparison of test weight per Winchester bushel, test weight per imperial bushel, and kilograms per hectoliter
 (25 to 65 pound basis Winchester bushel)

| Test weight per Winchester bushel | Test weight per imperial bushel | Kilograms per hectoliter |
|-----------------------------------|---------------------------------|--------------------------|
| 25.0 | 25.8 | 32.2 |
| 26.0 | 26.8 | 33.5 |
| 27.0 | 27.9 | 34.7 |
| 28.0 | 28.9 | 36.0 |
| 29.0 | 29.9 | 37.3 |
| 30.0 | 31.0 | 38.6 |
| 31.0 | 32.0 | 39.9 |
| 32.0 | 33.0 | 41.2 |
| 33.0 | 34.1 | 42.5 |
| 34.0 | 35.1 | 43.8 |
| 35.0 | 36.1 | 45.0 |
| 36.0 | 37.2 | 46.3 |
| 37.0 | 38.2 | 47.6 |
| 38.0 | 39.2 | 48.9 |
| 39.0 | 40.2 | 50.2 |
| 40.0 | 41.3 | 51.5 |
| 41.0 | 42.3 | 52.8 |
| 42.0 | 43.3 | 54.1 |
| 43.0 | 44.4 | 55.3 |
| 44.0 | 45.4 | 56.6 |
| 45.0 | 46.4 | 57.9 |
| 46.0 | 47.5 | 59.2 |
| 47.0 | 48.5 | 60.5 |
| 48.0 | 49.5 | 61.8 |
| 49.0 | 50.6 | 63.1 |
| 50.0 | 51.6 | 64.4 |
| 51.0 | 52.6 | 65.6 |
| 52.0 | 53.7 | 66.9 |
| 53.0 | 54.7 | 68.2 |
| 54.0 | 55.7 | 69.5 |
| 55.0 | 56.8 | 70.8 |
| 56.0 | 57.8 | 72.1 |
| 57.0 | 58.8 | 73.4 |
| 58.0 | 59.9 | 74.6 |
| 59.0 | 60.9 | 75.9 |
| 60.0 | 61.9 | 77.2 |
| 61.0 | 63.0 | 78.5 |
| 62.0 | 64.0 | 79.8 |
| 63.0 | 65.0 | 81.1 |
| 64.0 | 66.0 | 82.4 |
| 65.0 | 67.1 | 83.7 |

APPENDIX

Table 79.--Factors for obtaining retail weights from weights at specified market levels

| Commodity | Primary form | Factors |
|--|----------------------|---------------|
| <u>Dairy products</u> | | |
| Fluid milk and cream | Farm weight | 0.98 |
| Cheese, American and other | Factory weight | 1.0 |
| <u>Meats</u> | | |
| Beef | Carcass weight | .74 |
| Veal | do. | .83 |
| Lamb | do. | .89 |
| Pork | do. | .93 |
| Lean pork | do. | .65 |
| Bacon and saltside | do. | .28 |
| <u>Poultry</u> | | |
| Chickens | Ready-to-cook weight | 1.00 |
| Turkeys | do. | 1.00 |
| <u>Eggs</u> | Farm weight | <u>1/.97</u> |
| <u>Fish</u> | | |
| Fresh and frozen fish | Edible weight | <u>2/1.00</u> |
| Shellfish, fresh and frozen | do. | 1.00 |
| Cured fish | Cured weight | 1.00 |
| <u>Fats and oils</u> | | |
| Lard | Fat content | 1.00 |
| Margarine | do. | 1.24 |
| Compounds and vegetable and cooking fats | do. | 1.00 |
| <u>Peanuts, shelled edible</u> | Farmer's stock basis | .655 |
| <u>Sugar</u> | Refined | 1.00 |
| | Raw value | .935 |
| <u>Dry beans and peas</u> | Farm weight, cleaned | .96 |
| <u>Fresh fruits</u> | | |
| Apples | Farm weight | 0.96 |
| Apricots | do. | .91 |
| Avocados | do. | .94 |
| Bananas | do. | .95 |
| Cherries | do. | .92 |
| Citrus: | | |
| Oranges | do. | .97 |
| Tangerines | do. | .94 |
| Grapefruit | do. | .97 |
| Lemons | do. | .96 |
| Limes | do. | .95 |
| Tangelos | do. | .96 |

Continued--

APPENDIX

Table 79.--Factors for obtaining retail weights from weights at specified market levels
Continued--

| Commodity | Primary form | Factors |
|--|-------------------------|---------|
| <u>Fresh fruits continued</u> | | |
| Cranberries | Farm weight | .96 |
| Dates | do. | .96 |
| Figs | do. | .91 |
| Grapes | do. | .91 |
| Melons: | | |
| Cantaloupes | do. | .92 |
| Watermelons | do. | .90 |
| Nectarines | do. | .95 |
| Peaches | do. | .94 |
| Pears | do. | .95 |
| Pineapples | do. | .95 |
| Plums or prunes | do. | .95 |
| Strawberries | do. | .95 |
| | | .92 |
| <u>Canned fruits and juices</u> | Canned weight | 1.00 |
| <u>Chilled fruits and juices</u> | Product weight | 1.00 |
| <u>Dried fruits</u> | Packed processed weight | 1.00 |
| <u>Frozen fruits and juices</u> | Frozen weight | 1.00 |
| <u>Fresh vegetables</u> | | |
| Onions, dry | Farm weight | .94 |
| Potatoes | do. | .96 |
| Sweet potatoes | do. | .90 |
| Tomatoes | do. | .85 |
| Dark green and deep yellow vegetables: | | |
| Broccoli | do. | .92 |
| Carrots | do. | .97 |
| Escarole | do. | .93 |
| Kale | do. | .88 |
| Peppers, green | do. | .92 |
| Spinach | do. | .88 |
| Other vegetables: | | |
| Artichokes | do. | .93 |
| Asparagus | do. | .91 |
| Beans: | | |
| Lima | do. | .92 |
| Snap | do. | .94 |
| Beets | do. | .93 |
| Brussels sprouts | do. | .92 |
| Cabbage | do. | .93 |
| Cauliflower | do. | .92 |
| Celery | do. | .93 |
| Corn | do. | .93 |
| Cucumbers | do. | .92 |
| Eggplant | do. | .90 |

Continued--

APPENDIX

Table 79.--Factors for obtaining retail weights from weights at specified market levels
Continued--

| Commodity | Primary form | Factors |
|---------------------------------|-----------------------------|---------------|
| Other vegetables continued | | |
| Garlic | Farm weight | .81 |
| Lettuce, all varieties | do. | .93 |
| Onions, green | do. | .94 |
| Peas | do. | .95 |
| Canned vegetables | Canned weight | 1.00 |
| Frozen vegetables | Frozen weight | 1.00 |
| Dehydrated vegetables | Dehydrated weight | 1.00 |
| Grain products | | |
| Barley, pearl | Farm weight of barley | .550 |
| Barley, other food use | do. | <u>3/.708</u> |
| Wheat products: | | |
| White flour | Farm weight of wheat | .731 |
| Whole wheat flour or meal | do. | .98 |
| Corn products: | | |
| Corn meal | Farm weight of shell corn | .696 |
| Hominy grits | do. | .518 |
| Corn starch | do. | .614 |
| Corn cereals | do. | .384 |
| Corn sirup | Farm weight of shelled corn | .672 |
| Corn sugar | do. | .536 |
| Oat cereal | Farm weight of oats | .598 |
| Rye flour | Farm weight of rye | .80 |
| Buckwheat flour | Farm weight of buckwheat | .60 |
| Rice, milled | Wholesale weight | 1.00 |
| Beverages | | |
| Coffee | Green bean basis | .84 |
| Tea | Import weight basis | 1.00 |
| Cocoa products | Bean basis | <u>4/.80</u> |

1/ This factor allows for breakage only. In addition there is a loss of weight of about 4 percent from producer to retailer because of evaporation. The latter loss does not affect the nutritional value of the eggs.

2/ Factor for obtaining edible weight from round weight is 0.45. Factor for obtaining dressed weight from round weight is 0.70.

3/ In terms of malt equivalent.

4/ Chocolate liquor equivalent (53% fat content).

APPENDIX

Table 80.--Net content and approximate servings per container for various canned foods in common can and jar sizes 1/

| Product | Container size | Approximate -- | | | |
|---|---|---|--|---|--|
| | | Net weight or volume | Cups or pieces | Servings per container | Size of each serving |
| Fruits: | | | | | |
| Apples; apple sauce; berries; cherries; grapes; grapefruit and orange sections; fruit cocktail; fruits for salad; sliced peaches; pears; pine-apple, chunks, crushed, tidbits | :No. 8Z tall :No. 303 :No. 2 :No. 2½ :No. 10 | :8½ - 8 ¾ oz. :16 - 17 oz. :1 lb. 4 oz. :1 lb. 13 oz. :6 lb. 2 oz. to :6 lb. 12 oz. | :1 cup :1 ¾ - 2 cups :2½ - 2½ cups :3¼ - 3½ cups :12 - 13 cups : | :2 :4 :5 :7 :25 : | :½ cup :½ cup :½ cup :½ cup :½ cup : |
| Apricots, whole, medium size | :No. 303 :No. 2½ :No. 10 | :16 - 17 oz. :1 lb. 13 oz. :6 lb. 10 oz. | :8 - 14 :15 - 18 :50 - 60 | :4 :7 :25 | :2 - 3 apricots :2 - 3 apricots :2 - 3 apricots |
| Apricots, halves, medium size | :No. 8Z tall :No. 303 :No. 2½ :No. 10 | :8 ¾ oz. :16 - 17 oz. :1 lb. 13 oz. :6 lb. 10 oz. | :6 - 12 :12 - 20 :26 - 35 :95 - 130 | :2 :4 :7 :25 | :3 - 5 halves :3 - 5 halves :3 - 5 halves :3 - 5 halves |
| Peaches, halves; pears, halves | :No. 303 :No. 2½ :No. 10 | :16 - 17 oz. :1 lb. 13 oz. :6 lb. 10 oz. | :6 - 10 :7 - 12 :45 - 65 | :3 :7 :25 | :2 medium halves :1 large half :2 medium halves |
| Pineapple, sliced | :No. 1 flat :No. 2 :No. 2½ :No. 10 | :9 oz. :1 lb. 4 oz. :1 lb. 14 oz. :6 lb. 12 oz. | :4 :10 :8 :28 - 50 | :2 :5 :8 :25 | :2 slices :2 slices :1 large slice :1 large or 2 small slices |
| Plums; prunes | :No. 8Z tall :No. 303 :No. 2½ :No. 10 | :8 ¾ oz. :16 - 17 oz. :1 lb. 14 oz. :6 lb. 10 oz. | :7 - 9 :10 - 14 :12 - 20 :40 - 60 | :2 :4 :7 :25 | :2 - 3 plums :2 - 3 plums :2 - 3 plums :2 - 3 plums |
| Figs | :No. 8Z tall :No. 303 :No. 2½ :No. 10 | :8 - 9 oz. :16 - 17 oz. :1 lb. 14 oz. :7 lb. | :6 - 12 :12 - 20 :18 - 24 :70 - 90 | :2 :4 :7 :25 | :3 - 4 figs :3 - 4 figs :3 - 4 figs :3 - 4 figs |
| Cranberry sauce | :No. 6 - 8Z :No. 300 :No. 10 | :6 - 8 oz. :1 lb. :7 lb. 5 oz. | :¾ - 1 cup :2 cups :12 - 13 cups | :4 :8 :50 | :½ cup :½ cup :½ cup |
| Olives, ripe 2/ | :No. 8Z tall :No. 1 tall :Quart Olive :No. 10 | :4½ oz. :9 oz. :1 lb. 2 oz. :4 lb. 2 oz. | : :..... :..... :..... | : :..... :..... :..... | :3 olives :3 olives :3 olives :3 olives |
| Vegetables: | | | | | |
| Asparagus cuts; beans, green and wax, kidney, lima; beets; carrots; corn; hominy; okra; onions; peas; peas and carrots; black eye peas; pumpkins; sauerkraut; spinach and other greens; squash; succotash; sweetpotatoes 3/; tomatoes; mixed vegetables; potatoes, white, cut, sliced | :No. 8Z tall :No. 2 vacuum :No. 303 :No. 2 :No. 2½ :No. 10 | :8 - 8½ oz. :12 oz. :16 - 17 oz. :1 lb. 4 oz. :1 lb. 13 oz. :6 lb. 2 oz. to :6 lb. 12 oz. | :1 cup :1 ½ - 1 ¾ cups :2 cups :2½ - 2½ cups :3¼ - 3½ cups :12 - 13 cups : | :2 :4 :4 :4 :5 :7 :25 | :½ cup :½ cup :½ cup :½ cup :½ cup :½ cup : |

Continued--

APPENDIX

Table 80.--Net content and approximate servings per container for various canned foods in common can and jar sizes 1/, Continued--

| Product | Container size | Approximate -- | | | |
|---|------------------|---------------------------|-----------------------|------------------------|---------------------------|
| | | Net weight or volume | Cups or pieces | Servings per container | Size of each serving |
| Vegetables: continued | | | | | |
| Asparagus spears, medium size | No. 1 picnic | 10 $\frac{1}{2}$ oz. | 9 - 12 spears | 2 | : 4 - 6 spears |
| | Variable | 14 $\frac{1}{2}$ - 16 oz. | 16 - 28 spears | 3 | : 4 - 6 spears |
| | No. 2 | 1 lb. 3 oz. | 20 - 30 spears | 5 | : 4 - 6 spears |
| | No. 5 squat | 4 lb. 4 oz. | 115 - 145 spr. | 25 | : 4 - 6 spears |
| Potatoes: White, peeled, whole, small | No. 303 | 16 - 17 oz. | 8 - 12 | 4 | : 2 - 3 potatoes |
| | No. 10 | 6 lb. 6 oz. | 55 - 65 | 25 | : 2 - 3 potatoes |
| Beans: Baked with pork in sauce | No. 8Z short | 8 3/4 oz. | 1 cup | 1 - 2 | : $\frac{1}{2}$ - 3/4 cup |
| | No. 300 | 1 lb. | 1 3/4 cups | 3 - 4 | : $\frac{1}{2}$ - 3/4 cup |
| | Jumbo | 1 lb. 10 oz. | 3 cups | 4 - 6 | : $\frac{1}{2}$ - 3/4 cup |
| | No. 10 | 6 lb. 14 oz. | 12 - 13 cups | 16 - 25 | : $\frac{1}{2}$ - 3/4 cup |
| Mushrooms 2/ | | | | | |
| | No. 2Z mushroom | 2 oz. | 1/3 cup | 1 | : 1/3 cup |
| | No. 4Z mushroom | 4 oz. | 2/3 cup | 2 | : 1/3 cup |
| | No. 8Z mushroom | 8 oz. | 1 1/2 cups | 4 | : 1/3 cup |
| | No. 10 | 4 lb. 4 oz. | 12 - 13 cups | 36 | : 1/3 cup |
| Pimientos: Peppers, red sweet | | | | | |
|  | ..... | 2 oz. | 1/4 cup | ..... | ..... |
| | No. 4Z pimientos | 4 oz. | 1/2 cup | ..... | ..... |
| | No. 7Z pimientos | 7 oz. | 1 cup | ..... | ..... |
| | No. 10 | 6 lb. 13 oz. | 12 - 13 cups | ..... | ..... |
| Juices: | | | | | |
| Apple; cherry; cranberry; grape; grapefruit; grapefruit - orange; loganberry; nectars; orange; pineapple; prune; tangerine; carrot; sauerkraut; tomato; vegetable; vegetable cocktail | No. 6 - 8Z tall | 6 - 8 oz. | 3/4 - 1 cup | 1 - 2 | : 4 - 6 oz. |
| | No. 211 cylinder | 12 fl. oz. | 1 1/2 cups | 3 | : 4 oz. |
| | | : | : | 2 | : 6 oz. |
| | | 1 pint | 2 cups | 4 | : 4 oz. |
| | | : | : | 3 | : 6 oz. |
| | No. 2 | 1 pt. 2 fl. oz. | 2 1/4 - 2 1/2 cups | 5 | : 4 oz. |
| | | : | : | 3 | : 6 oz. |
| | No. 2 cylinder | 1 pt. 7 fl. oz. | 3 cups | 6 | : 4 oz. |
| | | : | : | 4 | : 6 oz. |
| | | 1 quart | 4 cups | 8 | : 4 oz. |
| | | : | : | 5 | : 6 oz. |
| | No. 3 cylinder | 1 qt. 14 fl. oz. | 5 3/4 cups | 12 | : 4 oz. |
| | | : | : | 8 | : 6 oz. |
| | No. 10 | 3 quarts | 12 cups | 24 | : 4 oz. |
| | | : | : | 16 | : 6 oz. |
| Lemon; Lime | No. 6Z | 5 1/2 - 6 oz. | 3/4 cup | ..... | ..... |
| Soups: | | | | | |
| Condensed | No. 1 picnic | 10 1/2 - 12 oz. | 1 1/4 cups (2 1/2 : 3 | 3 | : 3/4 cup |
| | | : | cups prepared | : | : |
| | | : | (soup) | : | : |
| | No. 3 cylinder | 3 lb. 2 oz. | 5 3/4 cups | 12 - 16 | : 3/4 cup |
| | | : | (11 1/2 cups pre- | : | : |
| | | : | pared soup) | : | : |
| Ready-to-serve | No. 8Z tall | 8 fl. oz. indv. | 1 cup | 1 | : 1 cup |
| | No. 1 picnic | 12 fl. oz. | 1 1/2 cups | 2 | : 3/4 cup |
| | No. 303 | 15 fl. oz. | 2 cups | 3 | : 3/4 cup |
| | No. 2 1/2 | 1 pt. 5 fl. oz. | 2 1/2 - 3 cups | 4 | : 3/4 cup |
| | | to | : | : | : |
| | | 1 pt. 9 fl. oz. | : | : | : |
| | No. 10 | 3 qt. | 12 cups | 20 | : 3/4 cup |
| | | : | : | : | : |

APPENDIX

Table 80.--Net content and approximate servings per container for various canned foods in common can and jar sizes 1/, Continued--

| Product | Container size | Approximate -- | | | |
|---|----------------|-------------------------------|------------------------|-------------------------|--|
| | | Net weight or volume | Cups or pieces | Servings: per container | Size of each serving |
| Meat and Poultry: 4/ | | | | | |
| Chili con carne; chili con carne with beans | No. 300 | : 15 - 16 oz. | : 2 cups | : 3 - 4 | : $\frac{1}{2}$ - 2/3 cup |
| | | : 1 $\frac{1}{2}$ lb. | : 3 cups | : 4 - 5 | : $\frac{1}{2}$ - 2/3 cup |
| | No. 10 | : 6 lb. 12 oz. | : 12 - 13 cups | : 18 - 24 | : $\frac{1}{2}$ - 2/3 cup |
| Corned beef | | : 12 oz. | : | : 4 | : 3 oz. |
| | | : 6 lb. | : | : 30 | : 3 oz. |
| Corned beef hash | | : 8 oz. | : 1 cup | : 1 - 2 | : $\frac{1}{2}$ - 2/3 cup |
| | | : 1 lb. | : 2 cups | : 3 - 4 | : $\frac{1}{2}$ - 2/3 cup |
| | | : 1 $\frac{1}{2}$ lb. | : 3 cups | : 5 - 6 | : $\frac{1}{2}$ - 2/3 cup |
| | | : 5 lb. 8 oz. - | : 12 - 13 cups | : 18 - 24 | : $\frac{1}{2}$ - 2/3 cup |
| | | : 5 lb. 1 $\frac{1}{4}$ oz. : | | | |
| Deviled ham | | : 2 $\frac{1}{4}$ - 3 oz. | : 1/3 cup | : 3 - 4 | : 1 $\frac{1}{2}$ tbsp. |
| | | : 4 $\frac{1}{2}$ oz. | : $\frac{1}{2}$ cup | : 5 - 6 | : 1 $\frac{1}{2}$ tbsp. |
| Deviled meat; potted meat; meat spreads | | : 2 - 3 $\frac{1}{4}$ oz. | : 1/3 cup | : 3 - 4 | : 1 $\frac{1}{2}$ tbsp. |
| | | : 5 $\frac{1}{2}$ oz. | : 3/4 cup | : 8 | : 1 $\frac{1}{2}$ tbsp. |
| Luncheon meat | | : 12 oz. | : | : 4 | : 2 slices |
| | | : 6 lb. | : | : 32 | : (3 $\frac{1}{2}$ " X 3 $\frac{1}{4}$ " X 3/8") |
| Tongue: beef, lamb, pork | | : 6 oz. | : | : 2 | : 3 oz. |
| | | : 12 oz. | : | : 4 | : 3 oz. |
| | | : 1 - 2 lb. | : | : 5 - 10 | : 3 oz. |
| Hams: Whole, small | | : 1 $\frac{1}{2}$ - 4 lb. | : | : 3 - 4 | : 2 slices |
| medium | | : 6 - 8 lb. | : | : per | : (4" X 3" X 1/8") |
| large | | : 9 - 14 lb. | : | : pound | : |
| Poultry, boned; chicken, turkey | | : 5 - 6 oz. | : | : 2 | : 3 oz. |
| | | : 12 oz. | : | : 4 | : 3 oz. |
| | | : 1 lb. 1 $\frac{1}{4}$ oz. | : | : 10 | : 3 oz. |
| | | : 2 lb. 3 oz. | : | : 12 | : 3 oz. |
| Sausage, pork; frankfurters | | : 8 oz. | : 11 - 12 | : 3 - 4 | : 3 sausages |
| | | : 12 oz. | : 8 - 9 large | : 4 | : 2 sausages |
| Stew: beef, lamb | | : 1 lb. | : 2 cups | : 2 | : 3/4 cup |
| | | : 1 lb. 1 $\frac{1}{4}$ oz. | : 2 $\frac{1}{2}$ cups | : 3 | : 3/4 cup |
| | | : 1 $\frac{1}{2}$ lb. | : 3 cups | : 4 | : 3/4 cup |
| Vienna sausage | | : 4 oz. | : 8 - 10 | : 2 | : 4-5 sausages |
| | | : 9 oz. | : 16 - 20 | : 4 | : 4-5 sausages |

Continued--

APPENDIX

Table 80.--Net content and approximate servings per container for various canned foods in common can and jar sizes 1/, Continued--

| Product | Container size | Approximate -- | | |
|---------------------------------|-------------------------|-----------------------|----------------|----------------------------------|
| | | Net weight or volume | Cups or pieces | Servings per container |
| Fish and seafood: 4/ Clams | 7½ oz. | 1 cup | 2 | ½ cup |
| Crab meat | 5½ - 7½ oz. | 3/4 - 1 cup | 2 - 3 | 1/3 - ½ cup |
| Mackerel | 1 lb. | 2 cups | 4 | ½ cup |
| Oysters | 8 oz. | 1 cup | 2 | ½ cup |
| Salmon | 7 3/4 oz. 1 lb. | 1 cup 2 cups | 2 4 | ½ cup ½ cup |
| Sardines Sardines, pilchards | 3 1/4 - 4 oz. 15 oz. | 6 - 10 6 - 7 large | 1 1/2 4 | 5 - 7 sardines 1 1/2 sardines |
| Shrimp 2/ | 4 1/2 - 6 1/2 oz. | 25 - 35 | 3 - 4 | 10 - 12 medium size |
| | | | | 6 - 8 jumbo size |
| Tuna in oil | 6 - 7 oz. 13 oz. | 1 cup 1 3/4 cup | 2 4 | ½ cup ½ cup |
| Infant foods: | | | | |
| Vegetables and fruits: | | | | |
| Infant, strained, homogenized | 4 3/4 oz. | ½ cup | ..... | ..... |
| Junior, chopped | 6 1/2 oz. 8 oz. | 3/4 cup 7/8 cup | ..... | ..... |
| Meats: | | | | |
| Infant, strained | 3 1/2 oz. | 7 tablespoons | ..... | ..... |
| Junior, chopped | 3 1/2 oz. | 7 tablespoons | ..... | ..... |
| Soups: | | | | |
| Infant | 4 3/4 oz. | ½ cup | ..... | ..... |
| Junior | 8 oz. | 7/8 cup | ..... | ..... |

1/ The net weight of various foods in the same size can or glass jar will vary with the density of the food. For the most part only minimum weights are shown in the table. Cups or pieces and servings in the table are approximate; and sizes of servings are given in rounded numbers to furnish a practical guide.

2/ Declared as drained weight. (The number of pieces per container varies as to size of the piece).

3/ Sweetpotatoes also come in 1 lb. 2 oz. to 1 lb. 7 oz. cans.

4/ Contents usually declared as net weight. Container size is variable, strained and homogenized foods for infants, and chopped junior foods, come in small jars and jars suitable for the smaller servings used.

Source: National Canners Association, Washington, D. C.

